

The CHEMIST AND DRUGGIST

for RETAILER - WHOLESALE - MANUFACTURER

Established 1859

28 Essex Street, Strand, London, W.C.2

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AUGUST 7, 1937

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Diary) 20/- Single Copies 9d.

The **HANDIEST SERVICE**
for **BUSY DISPENSERS**



CORK MOUTH BLACK MOULDED KORKALITE CAP WHITE ALUMINIUM ENAMEL SCREW CAP

REGISTERED
U G B
TRADE MARK
BRAND

WASHED & STERILIZED MEDICALS
READY FOR USE

U G B

UNITED GLASS BOTTLE
MANUFACTURERS LIMITED

The Largest Manufacturers of Glass Bottles in Europe
40-43 Norfolk Street, Strand, London, W.C.2

Phone : Temple Bar 6680 (10 lines) Grams : "Unglaboman, Estrand, London."

THE STANDARD MEDICAL BOTTLE FOR DISPENSING

The U.G.B. Washed and Sterilized Dispensing Bottle Service has stood the test of years and still remains the best value and most labour-saving for dispensers. Every bottle, whether cork mouth or for screw cap, passes through boiling distilled water, then dried with super-heated filtered air.

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The Summer Soap

NEKO
THE ORIGINAL
Germicidal
Soap, P.D. & CO.
AN EFFICIENT ANTISEPTIC SOAP
FOR GENERAL TOILET USE
PARKE, DAVIS & CO.
50, BEAK ST. LONDON, W. 1

NEKO
THE ORIGINAL
Germicidal
Soap, P.D. & CO.
THE SAFETY FIRST
SOAP

PARKE, DAVIS & CO.
50, BEAK ST. LONDON, W. 1

Sells readily to
**DOCTORS,
NURSES,
MOTHERS,
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SPORTSFOLK,
HOLIDAY-
MAKERS ETC**

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ADVERTISED
EVERYWHERE

5/- per Box
(One Month's Supply)

45/- per Doz.
(P.A.T.A.)



Elasto

Tablets

REGISTERED

THE NEW BIOLOGICAL TREATMENT FOR VARICOSE VEINS

National Press Advertising has made vast numbers of the general public keenly interested in Elasto. The interest can now easily be turned into sales and profit for you by showing Elasto prominently. Further—the enormous satisfaction your customers will get justifies your recommendation. They will appreciate it. Show material FREE . . .

THE NEW ERA TREATMENT CO. LTD.
CECIL HOUSE, HOLBORN VIADUCT, LONDON, E.C.1

**One and Threepence
Profit on every Sale!**

HOW TO MAKE A SLOW LINE

CARRY QUICK REPEATERS



**YOU SELL THIS
TO BE USED
ONLY ONCE**

**BUT THIS
TO BE USED
ONCE A WEEK**

**AND THIS
TO BE USED
EVERY DAY**

HOW OFTEN does a dog-owner buy a worm remedy? Only once a year on the average. Yet now you can use that infrequent sale to make your customers return *again and again* for two products which a dog needs regularly throughout his life!

Let us tell you how:

No dog-owner likes to worm his dog. He has been hoping for some means of avoiding repeated worming. And here it is at last—the Cooper Health Routine, discovered by Cooper, McDougall & Robertson. Extensive advertising is explaining this amazing new treatment to every dog-breeder in the country and building a tremendous demand for Pulvex and Cooper's Vitamin Ration, the two products involved in the Cooper Health Routine.

Now, therefore, when a customer asks you for a worming medicine, you can first sell him Cooper's Liquid Worm Remedy, an old and proved specific, and then sell him these two additional products by telling him the following facts.

1 Dogs get worms in two ways. Tapeworm is carried by fleas and roundworm comes through the habit of scavenging. Stop

these two troubles and you stop worm infection. To make a dog absolutely flea-proof, dust his coat once a week with Pulvex. This amazing insecticide doesn't merely stupefy the vermin as others do; it destroys them at once and keeps the dog immune from fleas, lice and ticks for a whole week.

2 Scavenging, too, must be cured by stopping the cause. Dogs eat filth (excreta) because their diet lacks essential mineral salts. Add Cooper's Vitamin Ration to the dog's food every day and he has all the mineral salts necessary for good health and habits. Scavenging stops and with it the danger of roundworm.

You will find that your profit on Pulvex and Cooper's Vitamin Ration per customer per year is 9 times what you get by selling a worm remedy alone.

If you want more detailed information on this interesting and profitable subject, just drop a card to the address below. And stock up well with Pulvex, Cooper's Vitamin Ration and Cooper's Liquid Worm Remedy. This Cooper Health Routine is creating a stir among thousands of dog-breeders through their technical journals, and they'll buy the products where they see them in the shop window.

EXTENSIVE ADVERTISING IN THE DOG PAPERS FOR COOPER HEALTH ROUTINE

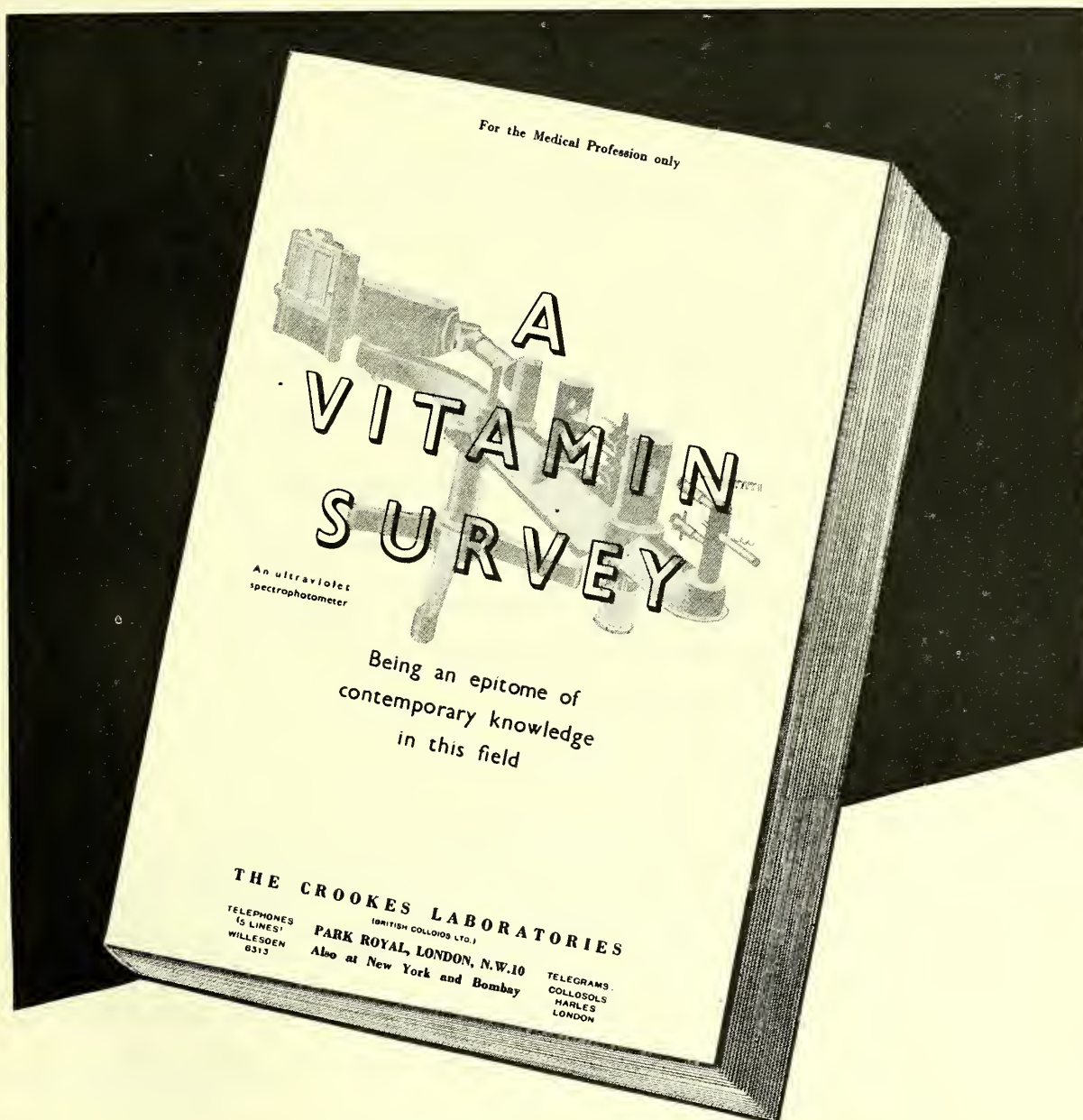
—Three sales in one!

1 COOPER'S LIQUID WORM REMEDY	2 PULVEX VERMIN POWDER	3 COOPER'S VITAMIN RATION
Small Dogs 1/3 Larger Dogs 2/6	6d. and 1/3	1/6 and 2/9

TRADE TERMS—less 33 $\frac{1}{3}$ % and less 5% cash monthly

COOPER, McDOUGALL & ROBERTSON LTD., Berkhamsted, Herts.





This comprehensive survey may be described as an epitome of contemporary knowledge on the subject of those accessory food factors—Vitamins. Although originally prepared for the medical profession the Crookes Laboratories will be glad to send a copy to any qualified member of the retail trade, free of charge, upon request.

THE CROOKES LABORATORIES

(British Colloids Ltd.)

PARK ROYAL, LONDON, N.W.10.

Telephone :- Willesden 6313 (5 lines)

Telegrams :- Collosols, Harles, London



Let us "Cut the Cackle"

I don't think I shall be far wrong if I say that you are almost sure to have the same opinion as I have about a lot of the "sales-patter" we hear so much of in these days. You know the sort of thing I have in mind. "Unprecedented Values," "Huge Profits," "Turnover Trebled," etc., etc. Well, it may suit some people to indulge in that sort of thing, but it isn't our way of doing business. If we did, it would be nothing more than an insult to your intelligence. Our printing won't bring you crowds of buyers looking for something on the cheap, but it will appeal to people who would be a regular asset to you and make them interested in what you have to sell, so we would like you to try us out in a practical way sometime. We take a pride in producing and selling honourably, and we know that you, like all our other friends, do business on the same basis. That's why we are particularly anxious to be associated with you in your endeavours, because it is very encouraging to know that it is our privilege and pleasure to work wholeheartedly with such good concerns as yours. So why not drop us a line sometime, and let us see if we can be of service to each other, or better still, have an informal chat with one of our representatives. There will not be the slightest obligation on your part, and I have every confidence in saying that once you really know us and our work, your faith and your confidence in us would be well rewarded

***for helpful printing see* WAIDE'S**

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QUALITY SERVICE EFFICIENCY



The House for DRUGS, GALENICALS,
SURGICAL INSTRUMENTS, PATENTS
and SUNDRIES

We invite your patronage...

HOUGH, HOSEASON & CO LTD

Head Office & Showrooms: BRIDGE STREET, MANCHESTER, 3
Phone: DEANSGATE 4744 - Grams: SALICYLATE, MANCHESTER

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ESTABLISHED
1904

Specialists
in the manufacture
of
Tablets
and
Pills

Over 30 years of Specialised
Manufacturing Experience
assure you of

QUALITY and ACCURACY

Our PRICES are COMPETITIVE

"Own Brand" printing for packed lines if required

**Special Quotations for Wholesale Quantities
or Export, packed or in bulk**

PROPRIETARY REMEDIES

We exercise the greatest care in the manufacture of proprietary lines and can supply either in bulk or ready packed for market including printing special designs of labels and cartons

The
Cooper Laboratory
Watford

Telephone :
3612

Telegrams :
"Science"



The new Liverpool Virus

Better than ever ... and easier to use

★ The same in its manner of disposing of rats and mice — but DIFFERENT in that it is more certain than ever.

The advance in scientific knowledge indicated that Liverpool Virus could be even further improved. But not until it was certain that complete efficiency had been reached has any

change been made. The NEW Virus represents the outcome of long observation and experiment.

You will recognise the NEW Liverpool Virus by the glass jar and carton. This modern style of packing has been specially designed to provide a most attractive counter and window display.

All prices and terms remain unaltered

THE NEW **LIVERPOOL**
VIRUS
REGD.
The Safe Mouse and Rat Destroyer.

EVANS SONS, LESCHER & WEBB LTD., HANOVER STREET, LIVERPOOL.

Beauty **DIXOR** Preparations

Veloury de Dixor

The original combined powder cream

Tubes	per doz.	Pots	per doz.
*No. 1...4 1/2	3/-	Handbag (Unbreakable)	1/3...10/-
*No. 2...6d.	4/-	Glass	2/9...21/-
*No. 3...1/-	7/-	De Luxe (Unbreakable)	4/6...36/-
No. 4...2/-	14/-	Made in 5 shades:—White, Ivory,	
No. 5...3/-	22/-	Natural, Ochre, Soleil Dore (Sungold)	

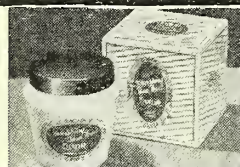
* Not less than 1 doz. of each shade supplied.



Nourishing Skin Food

Restores any deficiency of natural skin oils
The newest of skin foods; the formula being the result of recent research into skin conditions. Gentle but positive in action and harmless to the most delicate skin.

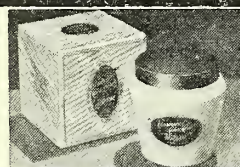
4 oz. Opal Pots, 2/9. 21/- per doz.



Cleansing Cold Cream

Another new product embodying the latest discoveries in cosmetic chemistry. Effectively cleans the pores of dirt and make-up without drying the skin, enlarging the pores or inducing hair growth.

6 oz. Opal Pots, 2/9. 21/- per doz.



Iradium de Dixor

Bottles	Handbag size	Skin tonic	per doz.
"	Small	1/-	8/-
"	Small	2/6	18/-
"	Large	5/6	39/-

Dixor Day Cream

(CRÈME DIXOR) in White only

Tubes	Small	Medium	Large	per doz.
"	6d.	7/-	14/-	3/-
"	2/-	3/-	22/-	14/-
"	Super	2/9	21/-	22/-
Pots	Fancy Glass or Opal	4/6	36/-	21/-
"	De Luxe (Unbreakable)			36/-

Dixodor

Checks excessive perspiration

Bottles... 1/- ... 8/- per doz.

Eau Dixor

A liquid depilatory, for use on the arms and legs.

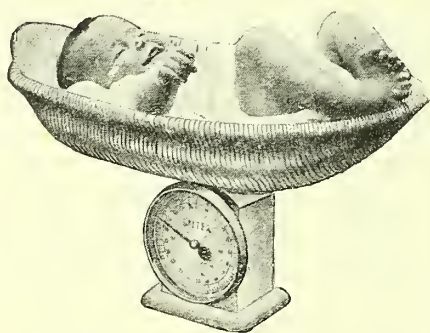
Bottles Small ... 1/- ... 8/- per doz.

Large ... 3/6 ... 27/-

" Minimum Retail and Wholesale Prices P.A.T.A. "

DIXOR Ltd., St. LEONARDS WORKS, MORTLAKE, S.W. 14

SALTER BABY WEIGHERS

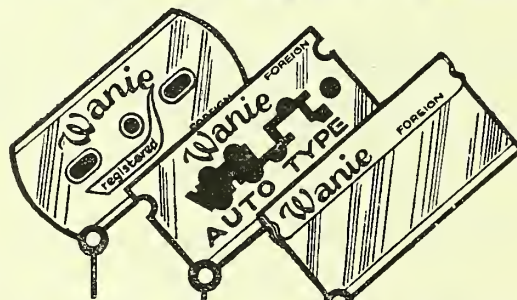


SALTER Baby Weighers and Personal Scales record an accurate and consistent weight in the comfort of Baby's nursery and the Bathroom. They are Nationally advertised and there is counter literature to help you to sell. Send for a supply and full particulars from the sole makers.

SALTER

GEO. SALTER & CO., LTD.,
DEPT. (C4), WEST BROMWICH

WANIE The Profit Raiser Blades



A range of Razor Blades that consistently raise your profits.

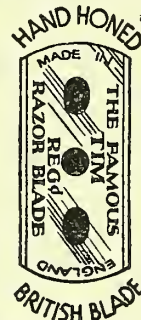
8/- PER GROSS

9/- PER 100

Free samples await your request.
Wholesalers are invited to write for Trade Terms.

3/9 TIM
PER GROSS

LONDON & PROVINCIAL FACTORS Ltd.
146 Theobalds Road, London, W.C.1
and at 16 Withy Grove, Manchester.





An entirely **NEW** Foot Cream — well advertised in the **National Press**—that will be a useful line to every **Chemist**

Feelees

· non GREASY ·
FOOT CREAM

"The Tonic for Tired Feet"

A scientifically balanced product — non - greasy — designed to re-invigorate the skin.

A New Line that will bring repeats

2/3 Size...18/- doz. Packed in special display cartons containing $\frac{1}{2}$ doz. jars.

1/3 size...10/- doz. Packed in display cartons containing 1 doz. jars.

A series of attractive Packs, each shown to advantage in a modern well designed Display Box in black and green.

SPECIAL BONUS OFFER

1 doz. jars charged as 11 on all opening orders to the value of 30/- and upwards.



6d. size ... 4/- doz. On Show Display Cards of 1 doz. or packed in display cartons containing 2 doz. tins.

Obtainable from all leading Wholesalers.

CARMAC LABORATORIES, HAMPTON, MIDDLESEX

Telephone: Molesey 100

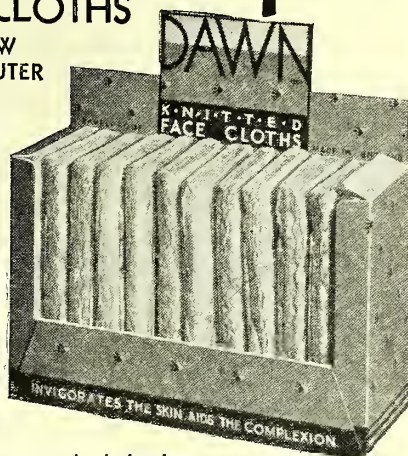
INCREASE YOUR SALES BY SHOWING

'DAWN'

FACE CLOTHS

IN THIS NEW DISPLAY OUTER

This new pack takes up little room on your counter and will attract many sales. It holds 1 doz. 6d "Dawn" Ravel-Proof Face Cloths in assorted colours, each packed in transparent wrapper. The individual cloths are easily taken out and customers can help themselves. Display this outer prominently and pull increased sales.



Obtainable from usual wholesaler

Jacques Fabrics Ltd

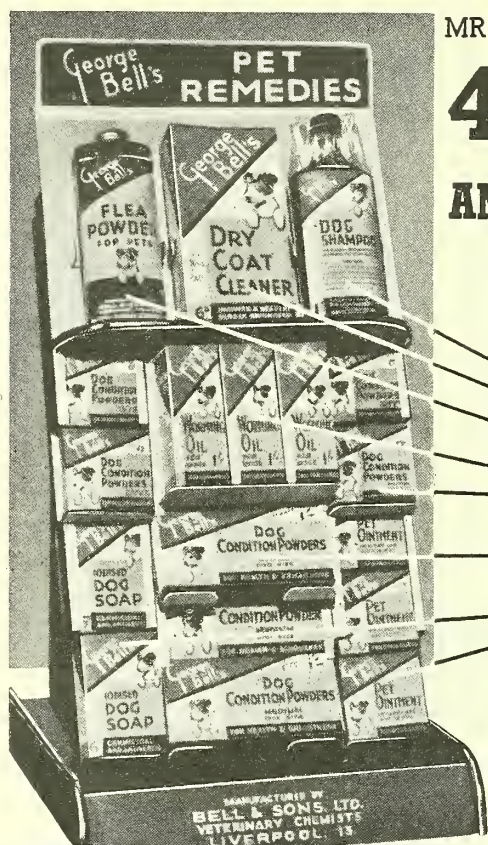
105/107 Princess St., MANCHESTER

London Agent: G. H. Bolton, 28 Falcon Square, Aldersgate St., E.C.1



CULMAK GIANT SPARTAN

OBTAINABLE BY REQUEST. PACKED WITH ONE DOZEN 1/6 SPARTAN SHAVING BRUSHES AT USUAL P.A.T.A. PRICES.



MR. GEORGE BELL SPEAKING TO CHEMISTS

45/- for 30/-**AND THIS 'SILENT SALESMAN' FREE****CONTENTS OF STANDARD "SILENT SALESMAN"**

(contents can be varied to the same value).

- 3 Shampoos . . . 3/-
- 9 Coat Cleaners . . 4/6
- 1 Tin of Flea Powder . . . 1/-
- 3 Worming Oils . . 3/-
- 28 6d. packets Condition Powders . . 14/- (3 strengths)
- 9 1/- packets Condition Powders . . 9/- (3 strengths)
- 12 Soap Tablets . . 6/-
- 9 Pet Ointments . . 4/6

Total Value.. **45/-**

As a special introductory offer I am giving a "Silent Salesman" free to Chemists with 45/- worth of George Bell's Pet Remedies for the sum of 30/-. The "Silent Salesman" is something quite new. Made of metal with aluminium finish. A customer can lift a packet from it, and another packet drops immediately into place. It occupies very little space and will prove a profitable business-getter. I shall be pleased to send one of my representatives to show you the "Silent Salesman" and to give you details of the National Advertising Campaign for my Compound Condition Dog Powders. Send your order through your wholesaler or direct to BELL and SONS, LTD., Veterinary Chemists, Dept. 1, Silverdale Works, Liverpool, 13

GEORGE BELL'S 'SILENT SALESMAN'

C.V.S. 19.

Increase YOUR PROFITS

by asking for terms and

Please YOUR CUSTOMERSBy Stocking a
British Made
Chrome Film.ALL STAND-
ARD SIZES
AVAILABLE**WE
SUPPORT
YOU BY**LIBERAL { Discounts
Advertising
Show Material**IPA WESTMINSTER LTD.**

8, 10 & 12 Lambeth Palace Rd., London, S.E.1

Telephone: Waterloo 5312 & 5313



The famous "Town Talk" Liquid Silver Polish, Silver Plate Cloth, Liquid Pewter Polish, Chromium Place Cloth, and Cut Glass Cloth, afford you five ways to a woman's purse. They are consistently advertised in women's newspapers and journals, and their qualities make them quick-selling, repeat-order lines.

Push the "Town Talk" 5, they yield a good profit and bring customers into your shop.**ORDER DIRECT OR FROM**

MANCHESTER: D. Mawdsley & Co. James Woolley Sons & Co., Ltd.	LONDON: Brooks & Warburton, Ltd. May, Roberts & Co., Ltd.
LEEDS: Goodall, Backhouse & Co., Ltd.	LIVERPOOL: Ayrton, Saunders & Co. Ltd.
LEICESTER: E. H. Butler & Son.	

THE TOWN TALK POLISH CO., MANCHESTER, 10

PERFECT GRANULATION

As every tablet manufacturer knows, good tablets are dependent on good granules. More and more manufacturers are finding that the best method of obtaining perfect granules is by means of the Manesty Oscillating Granulator. This machine saves time and labour. It cuts out all cumbersome methods and does the work of four operators much more efficiently. It will pay for itself in a few months. The machine makes granules from powder, but can also be used for breaking down large crystals and fused masses such as are formed in the granulation of effervescent salts. The notable advantage of this machine is the almost complete absence of dust in the granules. The size of granules can be altered by simply changing the wire screens. Three stainless steel wire screens are provided with each machine. Let us send you a machine on one month's free trial!

MANESTY

OSCILLATING GRANULATOR

SPECIFICATION

Height, 4 ft. 2 ins.
Floor Space, 36 ins. × 36 ins.
Pulleys, 10 ins. × 2 ins.
Capacity, 150 lb. per hour (approx.)

Speed, 480 r.p.m.
Power required, 1 h.p.
Lubrication, Grease Gun.
Weight 311 lb.

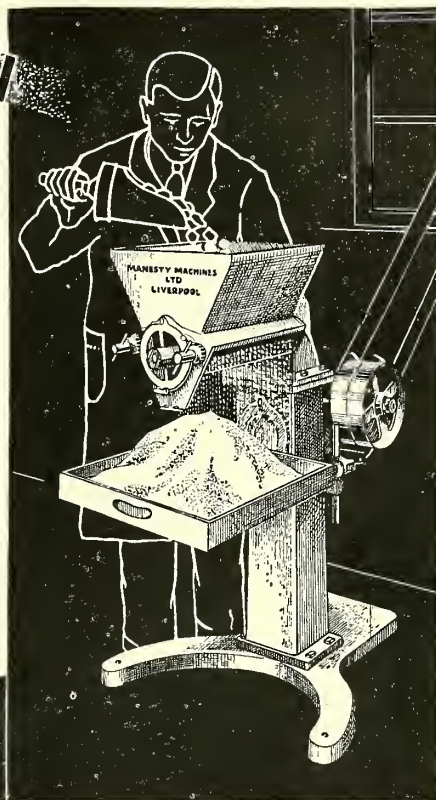
Catalogue of MANESTY Chemical and Pharmaceutical Machinery will be sent on request.

MANESTY MACHINES LTD

Makers of CHEMICAL & PHARMACEUTICAL MACHINERY

PROPRIETORS: THOMPSON & CAPPER WHOLESALÉ LTD

5 SPEKE HALL ROAD • LIVERPOOL • 19



SURE TO SELL SU-CAN SOLUBLE

SANITARY TOWELS

Obtainable from your usual wholesaler.

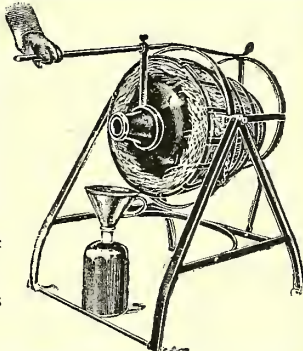
ROBINSON & SONS, LTD. CHESTERFIELD & 168 OLD ST., LONDON, E.C.1

CARBOY STAND AND TILTER.

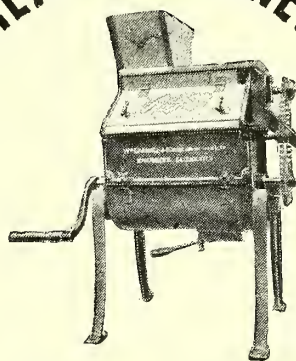
For drawing off small quantities of acids, etc., from Carboys, with ease and safety.

The Carboy can be tipped to any position with one hand.

LEIGH & SONS,
Orlando Iron Works
BOLTON.



A GREAT MACHINE...



...This little GARDNER SIFTER & MIXER For the Chemist & Druggist

Can be supplied for hand or power drive. Capacity 15 lbs. per mixing. It differs only in size from the larger machines which are made in capacities up to 20 tons.

Wm. GARDNER & SONS (Gloucester) LTD.
Bristol Road, Gloucester
London: 19 Gray's Inn Chambers,
20 High Holborn, W.C.1
Telephone: 2288
Chancery
7347



An Important Announcement from the Makers of **EX-LAX** brand **Chocolate Laxative**

Dear Sir,

The makers of Ex-Lax brand Chocolate Laxative take pleasure in announcing to you that 'Ex-Lax' is now on the Chemists' Friends List. Its sale is restricted to qualified Chemists only. This means that just as 'Ex-Lax' advertising has directed customers to the Chemist for their supplies of 'Ex-Lax,' now the Pharmacy will be the only source of supply.

There is a prevalent belief, among the manufacturers of popular Chemists' lines, that National Advertising cannot be profitable unless every possible channel of trade is served.

Heretofore we ourselves have been led to believe this theory. We believe now, however, that we have been misguided.

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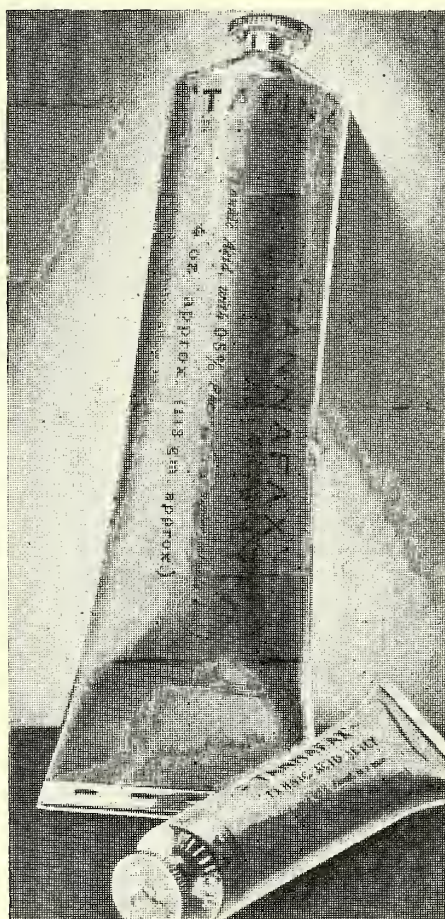
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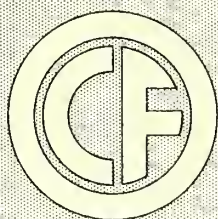


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News of the Week

Pharmaceutical Society of Great Britain

The following are the results of the Pharmaceutical Chemist Qualifying examination held in London during last month:—

Old Syllabus.—Entered 17; passed 6; failed 4; absent 3; referred in botany 2; in chemistry 1; in pharmacy 1.

New Syllabus.—Entered 47; passed 27; failed 15; absent 2; referred in pharmacology 1; in pharmaceutical chemistry 1; in forensic pharmacy 1.

The following candidates satisfied the examiners:—

Adams, E. G.
Anderson, Violet
Billenness, G. S.
Cullen, R. G.
Davies, S. H.
Feltham, K. S.
Field, Roland
Hallett, Constance M.
Hopkins, S. J.
Hopkinson, E. V.
Jameson, F. G.
Jeffery, J. E.
Leslie, Kathleen M.
Lock, John Avis
Merritt, R. P.
Myers, L. D.
Padfield, John

Parry, W. H. G.
Prance, H. P.
Robinson, E. J.
Rogers, Muriel M.
Scott, W. G.
Senior, Norman
Sharp, K. E.
Shellard, E. J.
Smallwood, A. G.
Starkey, S. J.
Thompson, H. G.
Tinley, E. H.
Wagg, R. E.
Watt, J. G.
Wing, W. T.
Woolfe, Gerald

Proprietary Articles Trade Association

We are advised by the Proprietary Articles Trade Association, 43 Gordon Square, London, W.C.1, of the following additions to and alterations in the Protected List. The retail and wholesale prices quoted are the minimum selling prices fixed by the manufacturers and protected by the P.A.T.A.:—

Additions.—Thos. Kerfoot & Co., Ltd., 2 oz. cartons, Friars Balsam Pastilles, Zone Brand, 6d.; 2s. 3d. per lb.—28 lb. lots, 2s. lb., less 5 per cent. before 15th month following invoice date.

Alterations.—Ex-Lax, Ltd., ex-Lax Brand Chocolate Laxative and other products are now retailed by chemists only, and therefore the 3s. stamped pack has been withdrawn. The minimum retail and minimum wholesale prices remain unchanged (see page 121—1937 Year Book). Revised Bonus offers—Ex-Lax Brand Chocolate Laxative:—3 dozen 6d. size or equivalent to value of 13s. 6d.—a bonus of $\frac{1}{4}$ dozen 6d. size free. No cash discount. 6 dozen 6d. size or equivalent to value of £1 7s.—a bonus of one dozen 6d. size free. No cash discount. 12 dozen 6d. size or equivalent to value of £2 14s.—a bonus of $2\frac{1}{2}$ dozen 6d. size free and a further $2\frac{1}{2}$ per cent. for cash in 7 days. This bonus allowance is conditional on exhibition by the retailer of a display container and showcard in a prominent position on the counter for fourteen days from date of delivery.

The above prices and terms do not apply to the Irish Free State.

Liverpool

At Liverpool Police Court, on July 28, Thomas W. Rylands (27), and Alfred McLearn (44), formerly employed as drivers by R. Sumner & Co., Ltd., Hanover Street, were charged on remand with stealing five gallons of olive oil and with conspiring to steal goods belonging to the company between August 1935 and June 1937 (*C. & D.*, July 31, p. 109). There were four charges against McLearn of inciting servants of the company to steal the goods of the firm; and Rylands was further charged with making false entries in a receipt book and with aiding and abetting three chemists to obtain credit notes by false pretences. The chemists, Messrs. William Tregenza, Charles Stewart Cullen and William Shackleton, were charged with receiving oil, knowing it to have been stolen, and with obtaining credit notes from R. Sumner & Co., Ltd., by false pretences. Further evidence for the prosecution was now given by David Tyrer, a packer, and Thomas Henry Swindles, an assistant in the oil department. On behalf of Mr. Shackleton, Mr. R. G. Glover submitted that there was no case against him, and expressed surprise that in view of the evidence he had been prosecuted at all. He bought the olive oil because he was told it was to assist a former chemist who was in temporary difficulties. With regard to the charge of obtaining credit notes by false pretences, he submitted that the evidence failed to make out a case against him. The charge of obtaining credit notes by false pretences was dismissed, but Mr. Shackleton was committed for trial on the charge of receiving olive oil. The other defendants were also committed: all pleaded "Not guilty" and reserved their defence. Bail was allowed.

London

A meeting of the London Chemists' Golfing Society was held at Oxhey Golf Club, on July 22, and by far the largest attendance of the season mustered to play for the Yeast Vite prize and the Morny prize. Conditions were favourable, and scoring was very keen. Mr. James Abernethy set the pace with a card of 82 - 8 = 74 for the Yeast Vite prize, and this proved too much for the other members. Other scores were:—

F. E. Lever ..	89 - 12 = 77	P. G. Hunt ..	88 - 10 = 78
G. H. Hankinson ..	84 - 6 = 78	F. E. Roberts ..	94 - 15 = 79
W. Bennett ..	96 - 18 = 78		

The Morny prize for the best bogey card was won by Mr. F. E. Lever after a tie with Roberts, Bennett and Hunt. The actual winner was decided on the last six holes. Other scores:

W. Bennett ..	3 Down	G. H. Hankinson ..	4 Down
P. G. Hunt ..	3 Down	F. C. O. Shaw ..	4 Down
F. E. Roberts ..	3 Down	G. G. Gibson ..	4 Down

The next meeting will take place on September 16 at Hartsbourne Manor.

At Old Street Police Court, on August 2, Henry Sitton (30), labourer, was charged on remand with stealing

CONTENTS
See p. 153

health salts and other goods, value 3s., the property of his employers, The British Drug Houses, Ltd., Graham Street, N.1. The magistrate discharged him under the Probation of Offenders Act.

Portsmouth

June and July have not proved perfect summer months so far as summer lines and photography are concerned. The reports from all parts of the city are that summer lines are "hanging fire." The tendency in Southsea is for the holiday season to shorten.

The chemists' rota is receiving nothing but praise from the participants and seems to be working very smoothly, although there is some "illicit" business in films, etc., due to some extent to the fact that the City Council have done nothing to grant or refuse an Exemption Order. Chemists are not the offenders.

Miscellaneous

PRECAUTIONS IN USING LIQUID CHLORINE.—The Factory Department of the Home Office has issued a memorandum (H.M. Stationery Office, 2d.) on precautions desirable in the handling, use and storage of liquid chlorine.

CUSTOMS AND INLAND REVENUE ACT, 1888.—A notice prohibiting the use of glycyrrhizic acid, ammonium glycyrrhizate, and all other salts of glycyrrhizic acid and preparations or mixtures containing any of these substances in the manufacture or preparation for sale of beer appeared in "The London Gazette" of August 3.

COURSES IN ADVANCED CHEMISTRY.—The Advisory Committee for Advanced Chemistry to the Yorkshire Council for Further Education has issued a pamphlet giving details of the courses to be held during 1937-38. The following courses will be held at Bradford Technical College:—The Microscopy of Food and Drugs; Further Physical and Chemical Problems in the Textile Industry. The following courses will be held at Huddersfield Technical College:—Chemical Engineering; Gas Manufacture and Utilisation. Courses will be held at Leeds College of Technology on:—Synthetic Plastics; Microbiology. Particulars may be obtained from the Secretary, Yorkshire Council for Further Education, Education Offices, Calverley Street, Leeds 1.

Scottish Notes

The Duncan Medallist



MISS JESSIE CAMPBELL, DAUGHTER OF MR. GEORGE CAMPBELL, M.P.S., DALBEATTIE, HAS BEEN AWARDED THE DUNCAN MEDAL FOR THE BEST STUDENT OF THE YEAR IN THE FINAL "CHEMIST AND DRUGGIST" COURSE AT THE HERIOT-WATT COLLEGE, EDINBURGH. THE MEDAL WAS INAUGURATED LAST YEAR

Licensing of Advertisements (Scotland) Bill

A Bill to regulate the licensing of advertisements in Scotland has been introduced into the House of Lords. It proposes to prohibit the erection or maintenance of any advertisement without a licence from a local authority, but to exempt advertisements inside buildings, advertisements on premises relating to businesses carried on therein and limited to one to each frontage, advertisements on railway property not fronting public streets, statutory advertisements, and directional or traffic signs on roads. Existing advertisements are to be licensed for three years from the date of coming into force of

the Act. Appeals against refusal or against the imposition of certain conditions are provided for. If the fees charged do not cover the cost of administration, the deficit is to be met by means of a local rate. The expression "advertisement" is defined as "any word, letter, model, sign, placard, board, notice, device or representation, whether illuminated or not, in the nature of and employed wholly or in part for the purpose of advertisement, announcement or direction, and without prejudice to the foregoing shall include any structure or apparatus erected or intended only for the display of advertisements."

Irish Notes

Pharmaceutical Society of Ireland

The following candidates were successful in the July Assistants' examination of the Pharmaceutical Society of Ireland:—Passed (arranged alphabetically): Patrick Allen, Ralph Ernest Allshire, Kathleen Maud Lang, Edward Maguire, Michael McMahon, Maureen McSweeney, Bridget O'Keefe, Richard Joseph Sinnott, Jeremiah Slattery, Margaret Mary Smith.

Irish Drug Association

At the committee meeting of the Irish Drug Association held on July 26, Mr. P. A. Brady (president) in the chair, it was reported that the efforts of the Association to obtain a minimum profit of 33½ per cent. on all medical specialities continues to meet with success, and the committee were pleased to advise members that Evans Sons Lescher & Webb, (Ireland), Ltd., had already agreed to the wishes of the I.D.A. in this respect. The Galway Pharmaceutical Association wrote in connexion with certain points in the Association's recent agreement with the Chemists' Branch of the Irish Union of Distributive Workers and Clerks, and the matter was dealt with. The committee recommended that members should not give counter or window displays to newly introduced preparations until the lines have been added to the approved list. In connexion with the various firms on the approved list the Committee decided to instruct the Association's solicitor to draft an agreement to be signed by all chemists and druggists.

Dublin

Mr. P. J. Sweeney, L.P.S.I., has opened a branch in Dublin.

Mr. M. J. Conlan, L.P.S.I., is shortly opening a new pharmacy on the north side of Dublin.

Belfast

There will be no meeting of the Council of the Pharmaceutical Society of Northern Ireland during August. The next meeting will be held on the third Friday of September. The Ulster Drug Trade Association will also resume its monthly meetings in September.

On the occasion of the Royal visit to Belfast, Mr. A. W. Mann, M.P.S.I., was presented to the King and Queen. Mr. Mann is an Assistant Commissioner of the St. John Ambulance Brigade, and was responsible for the allocation of the ambulance and nursing divisions of the Brigade over the entire route traversed by their Majesties.

Many Belfast pharmacies were gaily decorated on the occasion of the Royal visit on July 28, especially those on the route of the procession. Among others, those of Mr. W. J. Hardy, Castle Place; Mr. James Tate, Royal Avenue; Mr. A. Gibson, Donegall Place; Mr. A. W. Mann, Donegall Square North; Mr. H. Todd, Holywood Road; Mr. J. C. Culbert, Connswater; and Messrs. Moore & MacDonald, Upper Newtownards Road.

The president of the British Medical Association (Professor R. J. Johnstone) paid an eloquent tribute to the late Sir William Whitla, M.D., in the course of his address from the chair during the recent visit of the Association. A few sentences may be quoted. "In his own subject of materia medica and therapeutics he was a recognised authority. But his chief claim on the gratitude of his fellows was that he was a pioneer in a path of medical literature on which he has since had many followers. His 'Dictionary of Treatment' came as a boon to many a harassed practitioner who had reached the end of his therapeutic resources. It . . . gained the

distinction of translation into more than one foreign language, and one of Sir William's cherished possessions was a beautifully bound version in Chinese. . . . Besides his private kindness to his brethren in need he built and presented to the Ulster Medical Society as its permanent home the Medical, since his death the Whitla Medical, Institute. . . . He had been one of those who in the face of much opposition advocated the establishment of Queen's University. . . . When he died he left to the University his house and grounds as a residence for the Vice-Chancellor, together with a large share of his considerable fortune."

Items in Parliament

SPIRITS (MEDICINAL PREPARATIONS)

Mr. Lee asked the Chancellor of the Exchequer whether he will state the quantity of spirits used for medicinal preparations or scientific purposes in respect of which rebate was allowed under Section Four of the Finance Act, 1918, during the year ended March 31, 1937?

Lieut.-Colonel Colville: The quantity of spirits used for medicinal preparations or scientific purposes in respect of which rebate was allowed under Section four of the Finance Act, 1918, as amended, during the year ended March 31, 1937, was 534,000 proof gallons.

SCIENTIFIC RESEARCH (SUBSIDIES)

Sir G. Fox asked the Financial Secretary to the Treasury how many Departments enjoying State subsidies for the research work they carry on are thereby empowered to enter into commercial transactions which compete directly with

private enterprise; and whether he will state their names and their types of activity?

Lieut.-Colonel Colville: It is not the practice of Government Departments to undertake work of scientific research or of scientific testing which can be equally well undertaken by private enterprise or left wholly to private enterprise. In the ordinary course, therefore, no question of competition with private enterprise arises.

POWER ALCOHOL

Mr. R. Acland asked the Chancellor of the Exchequer what is the loss to the revenue due to the fact that alcohol used for methylation for power purposes is not liable for Excise duty?

Sir J. Simon: The yield of a duty on power alcohol at the same rate as petrol would amount, at the present rate of consumption, to a little over £100,000 a year.

Mr. Acland asked the Chancellor of the Exchequer the amount of alcohol freed from excise duty for methylation for power purposes during the first six months of this year, and the corresponding figures for 1935 and 1936; and whether he will state why this alcohol, a large proportion of which is obtained from imported molasses, is not liable to duty?

Sir J. Simon: The quantity of alcohol made into power methylated spirits during the first six months of 1937 was 4,030,000 proof gallons; the corresponding figures for 1935 and 1936 were 708,000 and 1,233,000 proof gallons; with regard to the last part of the question, it has not so far been considered that the scale of consumption made it necessary to tax alcohol as a substitute for petrol.

Mr. Acland: As this activity is so clearly growing, will the right hon. Gentleman consider whether it should not be subject to a tax in the Budget next year?

Sir J. Simon: I am, of course, ready to consider the matter.

Topical Reflections

By Xrayser

Once Again

the annual meeting of the Conference is an event of the past. It is a platitude one hears at each successive Conference that it has exceeded in interest all that have gone before: this implies that the organisers of each gathering have increasingly difficult work to improve on their predecessors. The Liverpool meeting will long be remembered for its perfect organisation, its sight-seeing and its weather; the finish at Llandudno was a glorious one, and not the least enjoyable feature was the journey there and back through the romantic beauties of North Wales. I attended the ladies' excursion to the cathedrals, a memorable experience. The visit to Port Sunlight was a red-letter day in the annals of the Conference. Perfect weather, a bewildering array of sights to be seen and things to be done in art, sport, business enterprise, and social intercourse, all enjoyed through the generosity of Viscount Leverhulme. For the air-minded there was the visit to the Speke aerodrome, and for those who love the Mersey there was a visit to New Brighton, this at the invitation of the Wallasey pharmacists. A tobacco warehouse provided a thrill for the smokers, and not the least interesting event was a walk round the Canadian Pacific liner, "The Duchess of York."

In Your Editorial Article

on page 123, you stress the curious attitude, dwelt upon by Mr. T. Edward Lescher, of the official mind to pharmacy. Why is it that in practically all other countries the pharmacist has a status denied to his colleague in this country? At the meeting of representatives at the Conference there was a good deal of discussion upon the definition of pharmacy, and also upon a code of ethics as a guide to the pharmacist. It may be that along these lines there will be found an answer to the question; certain it is that in countries where the pharmacist has a recognised status his duties are defined clearly and his ethical code is high. Here is work for the new combination of the five elected representatives and the Organisation Committee of the Society. Another good point was made by Lord Leverhulme at the banquet,

when he said that the chemist, the physicist and the engineer had speeded up the process of production but the problem of distribution is a deep and perplexing one. Lord Leverhulme speaks with authority. There are those who think that better methods of selling will provide the solution of this problem, but surely this is a shallow view. To sell a man or woman something he or she may not want is not necessarily increasing the demand for it. The factory can produce more than can be disposed of, not because of bad salesmanship but because often the public do not require the goods. A restricted output through fewer distributors, combined with a simplification of types of goods, may be the answer to the question.

The Meetings of Representatives

may be voted a great success: this remark applies particularly to the conciseness of the speeches, the good temper shown by all, and to the very fair way in which the chairman, Mr. Marns, carried out his duties. There was evidence that the branches responsible for resolutions had considered them carefully, and those voicing the result of their deliberations had in several cases written out their speeches, with the result that they kept well within the time limit and presented their case in the fewest possible words. Probably the most important decision of the first meeting was the appointment of five representatives to assist the Organisation Committee of the Council in their deliberations, which may include the drafting of a new Pharmacy Bill. There were sixteen nominations, and the result of the ballot made known at the Wednesday meeting appeared to be satisfactory to those present, although I think it would have been a wise step if one or two representatives with a knowledge of other sections of pharmacy could have been elected. However, I understand that to the Organisation Committee may be added others specially qualified to speak for other interests. Perhaps the next in importance were those resolutions which sought to define the business of a chemist and druggist and to lay down a code of ethics to regulate that business. This is not the first time that similar resolutions have been drafted. The announcement by the president of the appointment of a public relations officer was received with general satisfaction. His office will be no sinecure.

Legal Reports

Pharmacy and Poisons Act, 1933.—At Ashton-under-Lyne County Police Court, recently, James Leonard Jackson, herbalist, Market Street, Droylsden, was fined ros. on each of four summonses, with £5 5s. costs, in respect of a sale of tablets containing ephedrine hydrochloride. He pleaded "Not guilty." Mr. A. C. Castle, who prosecuted on behalf of the Pharmaceutical Society, said that one of the Society's inspectors went into the shop and made a test purchase. Asked by the chairman whether he thought it was a reasonable assumption that people would mistake the defendant's shop for a chemist's shop, Mr. Castle said he thought it was, and remarked that it was similar to other shops of that type in the locality. Evidence of purchase was given by Miss Josephine Billington. The defendant stated that he was told by a traveller, who was a member of the Pharmaceutical Society, that he was entitled to sell the tablets since the formula had been altered.

At North London Police Court, on July 27, Alfred Rodd, grocer, Redwold Road, E., was fined £2, with 21s. costs, for having sold a phenolic disinfectant when he was not a listed seller of poisons. It was stated that the disinfectant was supplied in a wine bottle.

Loss of an Eye: Third-Party Claim.—In the King's Bench Division of the High Court, London, on July 29, the Lord Chief Justice gave judgment in an action arising from a laboratory explosion in a girls' school as a result of which a thirteen-year-old pupil lost an eye (*C. & D.*, June 19, p. 694). It was stated that the chemical was bought from Townson & Mercer, Ltd., and that company cited, as third parties, Frederick Allen & Sons (Poplar), Ltd., Upper North Street, E., who, they asserted, sold them as manganese dioxide a chemical which contained antimony sulphide. The jury found that Townson & Mercer, Ltd., had been negligent and awarded the girl £3,000 damages and her father £119 against that company. On June 17 his lordship heard arguments in a claim by Townson & Mercer, Ltd., against Frederick Allen & Sons (Poplar), Ltd. (*C. & D.*, June 26, p. 716). In his judgment he said that the science mistress, at the shop of Townson & Mercer, Ltd., asked for some manganese dioxide, and received 1 lb. of powder so labelled in a paper packet. In fact, however, the powder contained in the packet was not manganese dioxide but a mixture of ten parts of antimony sulphide to one part of manganese dioxide. This mixture, according to the evidence, was certain to explode in heat if it was mixed with potassium chlorate. It was further proved that the difference between antimony sulphide and manganese dioxide was not easy to detect by inspection but could be very easily detected by means of an extremely simple test. Townson & Mercer's manager proved that the powder had been bought as manganese dioxide by his company from Frederick Allen & Sons (Poplar), Ltd., and admitted that the invoice received by his company referring to the powder contained the following words: "The above goods are accurate as described on leaving our works but they must be examined and tested by user before use. The above goods are not invoiced as suitable for any purpose but they are of the nature and quality described." Nevertheless, Townson & Mercer made no examination and no test of the powder before re-sale, nor did they advise the mistress who made the purchase that examination or test was necessary or desirable before use. It was not suggested that they communicated to the third party any information to the effect that the manganese dioxide was to be, or might be, re-sold for the purpose of school experiments. Townson & Mercer's manager also admitted that his company had no laboratory and that the customers were not told to make a test. No evidence was called on behalf of Frederick Allen & Sons (Poplar), Ltd., whose counsel stated that he was content that the case should be dealt with on the assumption that his clients were in error. After hearing and considering the very careful arguments his lordship had come, reluctantly enough, to the conclusion that the third parties were entitled to succeed. His lordship referred to a principle laid down by Mr. Justice Bruce in 1904 (*Bostock & Co., Ltd., v. Nicholson*), and to a decision of the House of Lords in 1932 (*Donoghue v. Stephenson*). Applying these judgments to the present case, he said that the manganese dioxide which the third parties ought to have supplied to Townson & Mercer might have been re-sold for a variety of purposes or as innocuous compounds or mixtures. The use of it for school experiments was only

one of many possible uses, and the third parties, unlike Townson & Mercer, had no notice of the intended use. More than that, it was common ground that a very simple test, if it had been carried out, as the third parties' invoice prescribed (and as the schoolmistress was not warned), would immediately have exhibited the fact that antimony sulphide had erroneously been made up and delivered as manganese dioxide. Townson & Mercer had ample and repeated opportunity of intermediate examination, and, if they had taken the simple precaution which the invoice warned them to take, no mischief would have followed. It was to be observed also that the jury had awarded damages against Townson & Mercer, not for breach of contract, but for negligence in omitting to make any test for themselves and yet at the same time concealing from their purchaser the warning contained upon the invoice with which they had received the powder. In the result, therefore, his lordship gave judgment for Frederick Allen & Sons (Poplar), Ltd., against Townson & Mercer, Ltd., without costs.

Company News

P.C. means Private Company and R.O. Registered Office

METROPOLITAN PROPRIETARIES, LTD. (P.C.).—Capital £100. Objects: To carry on the business of wholesale, retail, manufacturing and dispensing chemists and druggists, etc. Fredk. W. Rennie, 3 Fenstanton Avenue, North Finchley, and Diana Rennie, directors. R.O.: 15/18 Finsbury Court, Finsbury Pavement, E.C.2.

A. H. BELL (MANSFIELD), LTD. (P.C.).—Capital £1,000. Objects: To acquire the business of chemists and druggists carried on by the executors of Arthur H. Bell. Miss Marjorie Bell, Twyford, Melton Mowbray, Leics; Henry A. Bell, 6 Cranmer Grove, Mansfield; Mrs. Nancy Allsopp, Croft Avenue, Mansfield; Harry Allsopp, Croft Avenue, Mansfield; John O. Winson, Station Approach, Mansfield; and Arthur Short, 26 Sheepbridge Lane, Mansfield; directors. R.O.: Regent Street, Mansfield, Notts.

DONSMO PRODUCTS, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of pharmaceutical, manufacturing and general chemists and druggists, manufacturers of and wholesale and retail dealers in capsules, lozenges, pills, pastilles, toilet requisites, perfumery, soaps, chemicals and proprietary articles, manufacturers of and dealers in containers or cases, boxes and packings wholly or partly of card, wood, metal or other materials, etc. Jas. F. E. Duddy, 33 Kensington Park Gardens, W.11; Don Stuart Momand, 10/15 Chitty Street, W.1; and Cyril H. Kyte, 65 Ravensdale House, N. Finchley, subscribers. The first directors are to be appointed by the subscribers. Solicitors: McKenna & Co., 31/34 Basinghall Street, E.C.2.

Bankruptcy Report

Re Joseph Edward Burton, The Manor House, Hyde Road, Woodley, Cheshire, drug-store proprietor. The public examination of this debtor was held recently at the Court House, Vernon Street, Stockport, when it was reported that there were liabilities of approximately £876, and no assets. Debtor, it was stated, first commenced trading in 1925 as a chemists' sundriesman at Nelson, and since then had carried on other similar businesses, one at Blackpool, and another at Westcliff. A receiving order was made against him in the Chelmsford Court when his liabilities totalled £1,800, on which a dividend of 2s. 4½d. in the £ was paid. Subsequently debtor was connected with various other ventures, and in March 1936 began to manufacture Pharmoint, a medical preparation. He registered his business, and in October 1936 advertised for a partner. He received £300 from a gentleman for a half-share in the business, and by the end of November 1936 all that money had been spent. Debtor then advertised for another partner, and a second gentleman advanced £300 for a quarter-share in the business. In March 1937 the trade effects of the business were seized for a debt of £117, which was paid by the two partners. The Official Receiver asked debtor whether, in the last eleven years, he had "let in" creditors for over £7,000. Debtor replied that he would place the amount at about £4,500.

Stock Exchange Prices

£1 shares unless otherwise stated	Dec. 31, 1936	June 30, 1937	July 30, 1937
	s. d.	s. d.	s. d.
Allen & Hanburys, 7% Prefd. Ord. ...	26 3	26 6	26 3
Amalg. Dental Co., 8% Prefd. Ord. ...	27 6	28 0	28 6
" " Deferred £1 ...	18 6	18 0	17 9
Aspro, Ltd. ...	18 9	16 3	18 9
Ayrton, Saunders & Co., 7½% Pref. ...	25 0	24 0	24 0
Beechams Pills, Deferred 5s. shares ...	63 0	63 0	60 6
Benger's Food, Ord. ...	38 0	34 6	36 6
Benzol & By-Products cum. part. Pref. ...	6 3	13 0	12 1½
Berger (Lewis) & Sons, Ord. ...	73 1½	62 6	63 9
Blundell Spence & Co. ...	22 0	17 4½	16 10½
Boake (A.), Roberts & Co., 5% Pref. ...	22 0	21 3	21 3
Boots Pure Drug, Ord. 5s. shares ...	60 0	50 9	52 3
Boots Pure Drug, 7% "A" Prefd. Ord. ...	33 3	32 9	33 0
Boots Cash Chemists (S.), 6% "A" Pref. ...	29 0	28 9	29 0
Borax Consol., Dfd. Ord. ...	35 6	29 9	30 9
Bovril, Ord. ...	27 3	29 0	28 6
" Dfd. ...	24 3	20 6	22 6
British Industrial Plastics (formerly British Cyanides), Ord., 2s. shares	3 1½	2 10½	2 10½
British Drug Houses, The, Ord. ...	21 9	23 0	23 0
British Glues & Chemicals, 4s. Ord. ...	9 10½	8 0	8 0
British Oil and Cake Mills, Prefd. Ord. ...	48 6	47 9	47 0
British Oxygen, Ord. ...	120 0	98 9	101 9
British Photo. Indus., 6% Cum. Pref. ...	4 0	3 3	3 6
Burt, Boulton & Haywood, Ord. ...	24 9	21 0	21 3
Bush (W. J.) & Co., 5% Pref. £5 ...	110 0	108 9	108 9
Callard, Stewart & Watt, Ord. ...	12 0	10 0	9 3
Cooper, McDougall & Robertson, Ord. ...	37 0	38 9	39 0
Crosfield (Joseph) & Sons, 6½% Pref. ...	28 9	29 6	29 9
Dubarry Perfumery, Ord. 1s. ...	3 4½	2 1½	2 1½
" 7½% Pref. ...	26 3	23 6	23 6
Eno Propriet'y, Ord. 5s. ...	8 10½	8 3	8 1½
Evans Sons Lescher & Webb, Ord. 6s. 8d. shares	5 3	5 3	5 2½
" 6% cum. part. Pref. ...	8 3	7 0	7 9
Field (J. C. & J.), Ord. ...	27 6	25 6	26 3
Galloway (P.H.), Ord. 2s. ...	3 6	3 4½	3 0
" 7½% Cum. Pref. ...	26 6	27 6	27 1½
Genatosan, Ltd., 1s. ...	6 4½	5 10½	6 10½
Gossage (William), 6½% Pref. ...	29 0	30 0	29 9
Greiff-Chemical H'dings, Cum. Pref. 10s. ...	11 9	11 0	11 1½
" Ord. 5s. ...	9 6	7 6	7 1½
Griffiths Hughes (Kruschen) Ord. ...	47 6	26 0	27 3
Grout & Co., Ord. ...	19 6	18 9	18 3
Hodders, Ord. 1s. ...	0 10½	0 10½	0 9
Ilford, Ltd., Ord. ...	28 9	28 6	28 3
" 6% Pref. ...	26 9	25 3	25 6
Imperial Chemical, 7% Pref. ...	35 0	33 6	33 3
" Ord. ...	41 6	36 6	39 3
Intern. Sponge Importers, 6% Pref. ...	8 9	7 0	8 0
Kent (G. B.) & Sons, 5½% Pref. ...	2 6	3 0	3 0
Knight (John), 25% Prefd. Ord. ...	107 6	102 6	101 3
Laporte (B.) & Co., Ltd., Ord. ...	123 9	100 0	105 0
Lever Bros., Ltd., 7% Pref. ...	33 6	32 6	31 6
" 8% Pref. ...	34 9	33 9	33 9
" 20% Prefd. Ord. 5s. ...	—	20 6	20 3
Lewis & Burrows, Ord. ...	24 0	23 9	23 9
" 6% Pref. ...	22 6	21 6	21 3
Liebig's Ext. of Meat, Ord. £5 ...	£17½	£16½	£16
Macleans 6% Red. Pref. ...	23 1½	23 6	23 6
Mellin's Food, 6% Pref. ...	2 6	2 6	1 4½
Nathan, J. (Glaxo), 7% Pref. ...	25 7½	24 6	24 0
" 8% Prefd. 10s. ...	13 6	12 6	13 0
" Ord. 1s. ...	7 9	7 6	7 9
Pears (A. & F.), 5% Deb. £100 ...	£110	£110	£110
Reckitt & Sons, Ord. ...	115 0	107 6	105 0
Sangers, Ord. 5s. ...	28 6	25 9	26 3
" Sanitas," The, Co., 9% Pref. ...	32 0	30 0	31 0
Sanitas Trust, 10% partic. Pref. ...	30 0	30 0	29 3
Smith (Stephen) & Co., Ord. 5s. ...	10 9	10 9	11 0
Spratt's Patent, Ord. ...	67 0	58 9	59 0
Stevenson & Howell, 6½% Cum. Pref. ...	27 0	25 6	25 6
United Glass Bottle Man., Ord. ...	50 6	52 6	53 6
Veno Drug Co., 8% Pref. ...	27 9	26 6	25 9
Virol, Ltd., Ord. ...	28 9	27 6	29 0
" 7% Pref. ...	25 6	24 3	24 3
White (A. J.), Ltd., Ord. 10s. ...	21 6	19 0	20 0
White (Timothy) & Taylors, 7½% Pref. ...	31 9	32 3	31 9
" Ord. 5s. ...	34 6	33 3	36 0
Woodlands Chemists, Ord. 5s. ...	1 6	10½	1 0
Wright, Layman & Umney (1932), 7% cum. Pref. ...	23 9	23 9	23 0

Conference Papers Summarised

THE following is a brief summary of the papers presented at the Liverpool meeting of the British Pharmaceutical Conference. Abstracts and discussions have been published in the *C. & D.*, July 31 (pp. 124-131) and in this issue on pp. 155-167:—

T. E. Wallis and S. Goldberg examined *The Histology of Indian Podophyllum*, and enumerated the diagnostic characteristics which differentiate it from the American variety.

W. J. C. Dyke investigated *The Relative Oral Toxicities for Mice of the Isomeric Aminobenzenesulphonamides*.

The Peptic Activity of Hog Stomach Preparations was compared by F. E. Rymill and C. A. MacDonald, who described a method for the determination of enzyme activity at various stages of manufacture.

E. M. Bavin and W. A. Broom discussed *The Effect of Certain Substances on the Absorption of Insulin*; they dealt with (1) certain metals and (2) tannic acid and zinc in this connexion.

C. G. Lyons and F. N. Appleyard verified, in papers on *Pill of Iron Carbonate and Citrated Ferrous Chloride*, that phenylanthranilic acid is an excellent indicator in assaying ferrous iron by ceric sulphate.

G. J. W. Ferrey, in *Notes on the Determination of Ferrous Iron*, suggested that xylene cyanole FF or diphenylamine be used as indicators in titration of ferrous iron by ceric sulphate.

Norman Glass, in a monograph on *The Preparation and Properties of the Subiodides of Bismuth*, described a precipitated form of bismuth subiodide with remarkable "sun-tan" colour and covering properties.

S. G. Liversedge gave details of his processes for *The Assay of Calcium Sodium Lactate*.

The Adsorption Fluorescence Reaction of various species of Rhubarb was discussed and tabulated by Sidney K. Crews.

Reticulocyte Response in Pigeons to Injections of Liver Extract was discussed by G. E. Shaw and J. Pritchard. Possible reasons for discrepant reports by various workers were given, and the authors expressed the view that in the purified liver extracts tested there was present a factor which, in certain pigeons, caused a reticulocyte response, but which was presumably unconnected with the haemopoietic activity of the preparation.

G. E. Shaw contributed a monograph on *Colour Reaction applied to Liver Extracts*. Among other notes the author made the interesting suggestion that liver extracts which will cure cord degeneration are rich in purin or chromogen, and those which will not are poor in this factor.

Pungency Values of Capsicum and Tincture of Capsicum were discussed by H. Berry and E. K. Samways. This investigation was carried out at the request of the British Pharmacopoeia Commission.

C. L. M. Brown contributed *Notes on Eusol and Camphorated Chalk*; he suggested a new formula for eusol and a percentage limit for camphor in camphorated chalk.

The Value of Compound Tragacanth Powder as a Suspending Agent was discussed by J. M. Rowson, who has carried out numerous viscosity tests and drew the conclusion that acacia should be omitted from this preparation.

The Preservation of Concentrated and Fresh Infusions was considered, in a first paper, by Kenneth Bullock and C. J. L. Elsdon, and certain conclusions were drawn.

James S. Toal gave details of the effect of storage on *The Decomposition of Paraldehyde, B.P.*, and suggested official sanction for the addition of a preservative.

Two papers by R. Maxwell Savage dealt respectively with *Note on the Penetration of Heat into Dressings enclosed in Drums and Experiments on the Sterilising Effects of Mixtures of Air and Steam and of Superheated Steam*, and continued the experiments reported by this author at the Bournemouth Conference meeting last year.

A Note on the Estimation of the Alkaloids of Ephedra was contributed by F. E. Rymill and C. A. MacDonald, who have found that the method for the assay of the alkaloids of ephedra described in the British Pharmaceutical Codex, 1934, has not given altogether satisfactory results.

D. C. Garrett presented *Notes on the Colorimetric Determination of Morphine* with a view to increasing the accuracy of the pharmacopoeial process.

H. O. Meek and F. G. Salvin contributed *Notes on the Determination of Volatile Oil in Drugs*, including a comprehensive review of the literature.

G. F. Hall and A. D. Powell have applied the ferricyanide method to *The Estimation of Acriflavine and Related Compounds in Gauzes, Pharmaceutical Preparations and Surgical Dressings*.

C. Morton and F. R. C. Bateson discussed *The Assay of Solutions of Iodine*, reviewing previous work and making suggestions.

Insurance Act Dispensing

Record of matters concerning chemists' interests in the National Health Insurance Acts

Ex. Cornwall.—It was reported at a meeting of the County Insurance Committee at Truro, on July 28, that a count of the insured persons in the county on July 1 gave a total of 105,591, an increase of 1,900 on the corresponding date of 1936. During the January to March period 82,859 prescriptions had been issued in respect of 59,943 insured persons, the average cost per prescription being 8.245d. It was decided to support a resolution from the Bournemouth Insurance Committee that in the interests of insured persons it is highly desirable that medical benefit should be extended to include consultant, specialist and laboratory facilities.

Derby.—Returns show that payments to chemists in respect of the supply of drugs and appliances during the past year amounted to £8,047, of which £4,099 represented dispensing fees. The number of prescriptions made up during the first quarter of the present year was 74,373, the average ingredient cost being 3.8d. and the average dispensing fee 4.5d. In the case of a test prescription for mist. alb. N.F., it appeared that the Committee's analyst reported a deficiency of 5.17 per cent. of mag. sulph. and a surplus of 22.5 per cent. of mag. carb., whereas the analyst of the N.P.U. returned the percentages at 5 and 17 per cent respectively. The chemist concerned explained that he dispensed the mixture from a half full bottle carefully shaken, and he could only surmise that on a previous occasion the bottle was not so well shaken. He had given instructions that in future this and similar mixtures were to be prepared by weighing and measuring at the time. He added that he had been on the panel since its inception and this was the first time his dispensing had been called in question. The explanation was accepted and the chemist was warned.

Exeter.—Mr. P. F. Rowsell presided at the first meeting of the new Devon Pharmaceutical Committee, held at Exeter on July 21. The following officers were elected:—*Chairman*, Mr. I. R. Phillips; *Treasurer*, Mr. P. F. Rowsell; *Auditors*, Messrs. M. T. Foster and J. H. Smith; *Secretary*, Mr. F. Southerden; *Dispensing Subcommittee*, Messrs. W. A. Burnage and P. F. Rowsell.—It was reported at a meeting of the Insurance Committee, on July 26, that there were 26,501 insured persons on practitioners' lists in the city on July 1, compared with 25,939 at the same period in 1936 and 25,633 in 1935. Commenting upon the National Health Insurance (Juvenile Contributors and Young Persons) Act, which comes into operation on January 1 next, the clerk said that under the measure boys and girls would be entitled to benefit as soon as they entered employment, and one result of the scheme would be an earlier qualification for dental and other treatment. Mr. W. Heale said it was anticipated that between 1,200 and 1,300 children under sixteen years of age would be affected in Exeter.

Kent.—At a meeting of the Kent Insurance Committee, on July 28, it was stated that with the exception of Deal, the arrangements made by chemists for Sunday services were satisfactory. Of ninety-eight samples of medicine taken for test, only four were referred for consideration, and of twenty-three samples of appliances taken, only two were referred to the Committee. Only in one case was it necessary to censure the chemist.

Middlesbrough.—At a meeting of the Insurance Committee on July 21, Mr. W. R. Brackenbury, M.P.S., drew attention to the administration of the finances of National Health Insurance, declaring it to be a scandal. The chairman asked if medical practitioners were satisfied with their remuneration. Dr. John Howell: We are not satisfied by any manner of means. . . . The 5 per cent. loss of the chemists is nothing to what we are short. The Chairman: I certainly think the chemists are being hardly dealt with. I think they are entitled to their dispensing fees, as well as the cost of the medicine.

North-East Midlands.—The total number of prescriptions dealt with in the area for the past year was 4,419,295, in 11,807 accounts, which figures constitute records in the experience of the Bureau, and compare with totals of 4,190,668 and 11,520, respectively, for the preceding year. The following comparative list shows the prescriptions of each of the

constituent Committee areas, with the corresponding figures for 1935:—

Area	Prescriptions, 1936	Prescriptions, 1935	Increase or Decrease
Barnsley	94,867	90,446	+ 4,421
Derby	236,245	222,552	+ 13,693
Derbyshire	813,325	766,835	+ 46,490
Grimsby	116,306	118,747	- 2,441
Halifax	202,022	194,667	+ 7,355
Huddersfield	266,966	247,924	+ 19,042
Lincoln	58,017	49,745	+ 8,272
Lincs. (Lindsey)	243,729	227,686	+ 16,043
Nottingham	550,163	523,459	+ 26,704
Nottinghamshire	610,610	580,126	+ 30,484
Rotherham	133,627	122,908	+ 10,719
Sheffield	1,093,418	1,045,573	+ 47,845
Number of insured persons for whom panel doctors were liable to prescribe	978,078	952,822	+ 25,256

Portsmouth.—The Portsmouth Pharmaceutical Committee has again been returned unopposed. There has not been a contested election for a good many years. The *personnel* of the Committee is as follows:—Messrs. W. R. Atterbury, W. H. Bown, G. W. Darling, T. A. Johnson, H. A. Mecoy, W. L. B. Murray, E. D. Lewis and J. W. Rhodes. At the annual meeting of the Committee the following appointments were made:—*Chairman*, Mr. H. A. Mecoy; *Vice-Chairman*, Mr. T. A. Johnson; *Secretary*, Mr. F. H. Ruoff. Messrs. Murray, Mecoy and Atterbury were appointed members of the Pharmaceutical Service Subcommittee, with Messrs. Bown, Darling and Rhodes as deputies.—Two reports were recently before the Insurance Committee from the Pharmaceutical Service Subcommittee. One case showed a deficiency of about 10 per cent. in ferri ammon. cit., the test prescription calling for mist. ferri ammon. cit., N.F. The chemist was cautioned. In the second case the test was for mist. ferri perchlor., N.F., and the analyst's certificate showed a deficiency of 34 per cent. in liq. ferri perchlor. The explanation offered was carelessness in measuring by a locum and the use of a concentrated liquor. The Subcommittee recommended a fine of £1.

Salford.—The following members have been elected to the Pharmaceutical Committee without contest:—Councillor W. F. Cuttiford, Messrs. H. Stout, J. E. Edwards, J. C. Price, T. Cox, R. C. Jones, A. I. Adcock (new member), J. Collins (co-opted). At a recent meeting it was decided to re-elect Councillor W. F. Cuttiford as *Chairman*, Mr. H. Stout as *Treasurer*, and Mr. T. B. Chadwick as *Secretary*.

Surrey.—The following appointments for the year 1937-38 were made at the recent annual meeting of the Surrey Pharmaceutical Committee:—*Chairman*, E. L. Slade (Surrey); *Vice-Chairman*, W. V. Burland (Guildford); *Secretary and Treasurer*, W. H. Fowler (Carshalton); *Finance Subcommittee*, W. V. Burland, C. B. Harrison (East Sheen), G. S. Powell (Redhill), and E. L. Slade.

Warwickshire.—The newly elected Warwickshire Pharmaceutical Committee met at Leamington recently. Officers were elected as follows:—*Chairman*, Mr. Nundy; *Vice-Chairman*, Mr. Price; *Secretary*, Mr. C. Davis; *Assistant Secretary*, Mr. W. S. Davis. The annual report was approved, also payments to members for attendances and expenses. A letter from the Worcester Pharmaceutical Committee on the question of fees for Sunday dispensing and the inadequacy of the present dispensing fees was discussed, and it was resolved that for the time being the Committee confine themselves to the demands put forward as the result of the recent Birmingham Conference of neighbouring committees. The secretary reported that a rota had been arranged at Rugby with the consent of the Insurance Committee. The report of the Central Checking Bureau was satisfactory.

Trade Marks (Amendment) Act, 1937

THE following are the principal passages in a memorandum prepared by the Chartered Institute of Patent Agents regarding the provisions of the Trade Marks (Amendment) Act, 1937:—

ASSIGNMENT.—The principal changes are:—(1) It will no longer be essential to transfer the goodwill of the business on the assignment of the registered trade mark, provided that if the goodwill does not pass, the assignment is appropriately advertised. (2) Subject to certain conditions, a trade mark will be validly assignable for a part only of the goods, and also for a part only of the territory of the United Kingdom for which it is registered.

"LICENSING."—The existing restrictions will be relaxed to the extent that people authorised by the proprietor to use his trade mark may be registered as "registered users" if the Registrar is satisfied on a number of points, including particularly the degree of control exercised by the proprietor over the use of the mark by the registered user. These new provisions should be particularly useful to companies who wish to let their marks be used by subsidiary or associated companies.

DEFENSIVE TRADE MARKS.—The proprietor of a well-known trade mark consisting of an invented word or invented words, e.g., "Kodak," will in future be able to obtain valid registration of the mark for goods on which he does not use it, so as to stop its use on those goods by others.

RIGHTS OF REGISTERED PROPRIETOR.—The rights of the proprietor are strengthened, in that he has wider powers to stop others from using his trade mark in any way in relation to their goods. This new provision is specifically designed to prevent the use of the registered trade mark by others in such phrases as "A substitute for Yeast-Vite," which the House of Lords not long ago held to be permissible under the old Acts. However, traders will still be able to make such use of a registered mark as is reasonably necessary to describe such articles as refills, spare parts and accessories for the goods of the registered proprietor. Further, the proprietor can by taking suitable steps prohibit certain acts likely to impair the value of his trade mark, such as the application of the mark to altered or repacked goods or the partial obliteration or alteration of the mark.

Use.—At present, only the application of a mark to the goods or other close physical association between the mark

and the goods is regarded as use of the mark. This limitation will be removed, so that the appearance of the mark in, for example, advertisements, catalogues and other trade literature will be regarded as use of the mark.

REGISTRABILITY.—In certain respects, the requirements as to distinctiveness of marks for registration will be relaxed. For example, marks which are not distinctive in the home market may be registered for export use if such marks would be distinctive in the export markets concerned. This will facilitate registration in foreign countries which impose the condition that a home registration must first be obtained. A further facility that will enable protection in the home markets and in export markets to be more promptly obtained is the abolition of the requirement of two years' user prior to application for registration in Part B of marks not possessing the necessary standard of distinctiveness to qualify for registration in Part A of the Register.

WORDS USED AS "THE NAME OF THE GOODS."—Certain trade marks, particularly when they are extensively advertised, are adopted by the public as a descriptive name of the article to an extent beyond the powers of the trade-mark proprietor to control, and at present the proprietor may lose his trade mark rights. The law is modified by the new Act, and the proprietor will not lose his rights unless he has allowed to come about a well-known and established descriptive use of the word by anyone carrying on trade in the article. A word trade mark in respect of a patented article or substance which, when the patent expires, is the only practicable name for the article, is at once invalid according to the present law. The new Act gives a two years' period of grace after the expiry of the patent to enable it to be proved by experience whether or not the word is in fact the only practicable name for the article.

PERIOD OF REGISTRATION.—The initial period of registration, which at present is fourteen years, will be reduced to seven years, with the object of clearing off the Register marks which have not come into active use, but the subsequent renewal periods will still be fourteen years each.

REGISTRATION FOR BENEFIT OF A COMPANY.—Under the new Act it will be possible for an individual to register a mark for and on behalf of a company which is about to be formed.

In addition, there are many useful minor alterations in the law.

International Pharmaceutical Federation

Abstract of an article by Dr. T. Potjewijd, General Secretary of the Federation

IN September of this year, the International Pharmaceutical Federation commemorates the twenty-fifth anniversary of its first meeting. As long ago as 1908 the possibility of founding an International Pharmaceutical Federation was first discussed. In 1912 the preparations were concluded by the inauguration ceremony in one of the Ministries at The Hague. The first meeting on September 25, 1912, was attended by the late minister, Mr. Heemskerck; Professor Dr. L. van Itallie, delegate of the Dutch Government and president of the eleventh Congress to be held in 1913, was appointed president.

The International Pharmaceutical Congress of 1910 was followed in 1913 by an Eleventh Congress, and it was the intention of the Federation to continue these Congresses. Unfortunately the ideals cherished by the founders of the Federation were not to be realised. Though the leaders were not actively engaged with the work of the Federation during the war years, they kept it alive to resume its important work in 1922. From that time the number of members has gradually increased, and since the Assembly of 1927 nearly all countries are represented in the membership of the Federation. Since 1930 the Federation passed through difficult times owing to the economic troubles with which the world was faced, which prevented many members from meeting their liabilities and which, unfortunately, gave rise to a general distrust between nations. Then, in 1935, thanks to the initiative of our Belgian colleagues, the Federation assisted in the organisation of the Twelfth International Congress.

The most important work of the Federation, soon after its revival after the war, is the report of the "Commission de la Nomenclature pharmaceutique," the results of which have been fully acknowledged by the "Deuxième Conférence Internationale pour l'Unification de la Formule des Médicaments Héroïques," who accepted the recommendations of this Committee, after the problem of an international nomenclature (also at the instance of the F.I.P.), had been put forward for discussion.

The Bulletin of the Federation (now in its eighteenth year), which at first appeared at irregular intervals, but is now published every year, shows the kind of work done on the nomenclature, analysis and standardisation of medicines, régulation of pharmaceutical training, sale of medicine, sick funds, military pharmacy, etc., nor can we omit a reference here to the publication in 1934 of the International Ships' Formulary compiled by a group of eminent members of the Federation.

About thirty-eight national associations make up the "membres ordinaires" of the Federation, but the fact that the greatest national pharmaceutical associations usually happen to be of a professional character has given the impression that the Federation concerns itself chiefly with professional and economic problems. This is not so: in countries where there are separate scientific associations they also, in many cases, are often "membres ordinaires," and many well-known contributors of the Federation belong to societies that by virtue of their constitution serve both sides of the profession.

BRITISH PHARMACEUTICAL CONFERENCE 1937

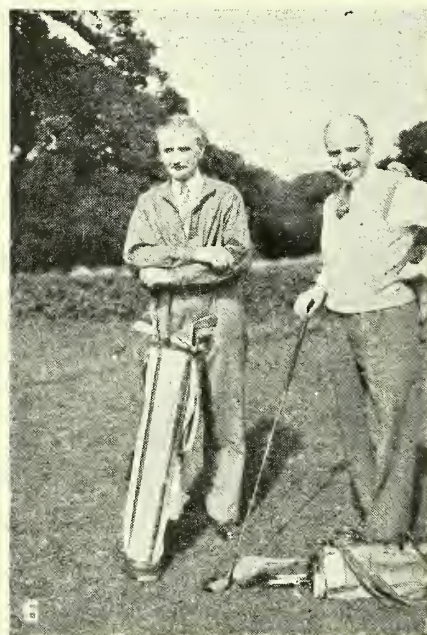


1. Mr. and Mrs. Bryan, with Mr. Atkinson (chairman N.P.U.) and Mrs. Atkinson.

2. Mr. G. Tocher (right) and Mr. Ramsay, interested in H_2O at Llandudno.

3. On the putting green at Bromborough.

4. Dr. Coutts and Mr. H. Skinner waiting to drive off.



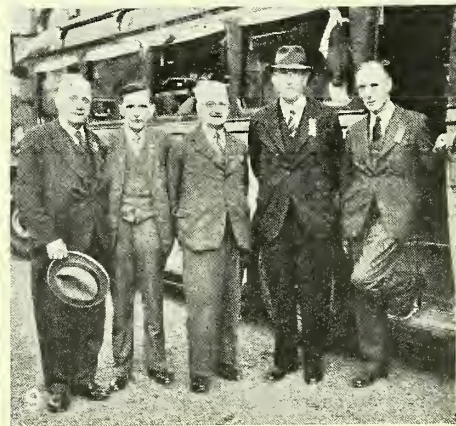
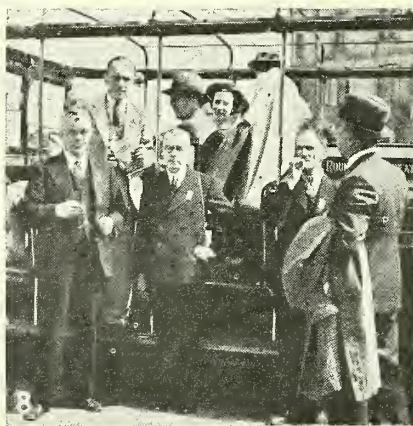
5. Luncheon* at Hulme Hall—Lord Leverhulme speaking.

6. Mr. Moffet and Mr. Ramsay.

7. Mr. and Mrs. Walmsley at Llandudno.

8. Llandudno—Leaving for the Great Orme.

9. Leaving Llandudno.



BRITISH PHARMACEUTICAL CONFERENCE

Social Side

On Tuesday afternoon the ladies' excursion was across the Mersey and as it was rather chilly and dull there were dire prognostications of rain. However, the sun came out and the trip from the landing stage to New Brighton was accomplished without disaster. Thereafter they walked along the water front to a magnificent new open-air swimming bath recently erected as a holiday attraction to the popular Liverpool seaside resort. From there they were conveyed by motor coaches to Wallasey Town Hall, where they were received by the Mayor and Mayoress and then entertained to tea by the Wallasey Pharmacists' Association.

To many the high light on the entertainment side of the Conference was the visit to Port Sunlight. The weather was delightful and thus the attractive qualities of the model village with all the modern amenities for ensuring the health and happiness of those associated with the great Lever industries were seen at their best. The organisation for the reception and entertainment of the 600 visitors was perfect and everything went like clockwork—an eloquent tribute to Mr. Lawman's talent for organisation. A bevy of Sunlight girls in white uniforms took charge of each coach party from the Adelphi in Liverpool until they left Port Sunlight late in the afternoon. Similarly the luncheon arrangements indicated a staff work that many hoteliers might envy, and the speech of welcome by Viscount Leverhulme was voted an outstanding example of Conference oratory. Several visitors, however, missed the point of his most amusing reference to the translation of Mr. Melhuish from the Council of the Pharmaceutical Society to the dazzling glory of a film star. It appears that some weeks ago several of the buildings certified for demolition to make room for the Society's new home in Brunswick Square collapsed before the tenants had moved out. One of the tenants was Mary Clare, the well-known actress and film star, and when the collapse occurred Mr. Melhuish—as chairman of the Building Committee—was hurriedly called upon to view the damage. Meanwhile, the daily Press scented a new sensation and the Press photographers got busy, with the result that Mr. Melhuish was "shot" while on his visit of inspection and the incident was filmed as a newsreel. Viscount Leverhulme's references to the incident were amusing and subtle, much to the delight of everyone present, and the genial Mr. Melhuish enjoyed the references as much as anyone.

On Thursday morning there was a "Ladies' Excursion" (reinforced, however, by a considerable number of males) to the Liverpool docks, and the tobacco warehouse. Several representatives of the Mersey Docks and Harbour Board took charge of parties and explained in detail the working of the various sections charged with the loading and unloading of the diversified freights that come daily into the port. In the tobacco warehouse one inspected floor upon floor of the 70,000 casks of tobacco held for maturing in the gigantic building. One learnt with amazement that each cask contained about 10 cwt. of tobacco leaf—the value of which (less duty) was about £90. While Virginian leaf still holds the field in popularity, the demand and supply of Empire-grown tobacco is increasing annually. In the Gladstone Dock the Canadian-Pacific liner "Duchess of York" was being loaded up prior to departure next day on regulation trip to Canada. The Conference members were taken on board, and officials of the C.P. Company took them in relays all over the ship.

On Thursday evening, Science shorn of its shackles set out to enjoy itself thoroughly and earnest delegates forgot business and political problems to join whole-heartedly in the frivolities of a supper-dance and cabaret in the Adelphi Hotel. There were about 500 present and all went merry as the proverbial marriage bell. The cabaret began with classical excerpts by Pierre Bethell and his band, followed by dances gracefully performed by the Margaret Einert Dancers, and as an anticlimax clever burlesques on the classical dance by two young men in Charlie Chaplin array and a grand finale by the

orchestra, dancers and the general company singing popular airs. This lasted, together with the dancing, until two o'clock in the morning, but even after that one heard sounds of polygliding in the hotel corridors to the strains of improvised vocal orchestration.

The whole-day excursion on Friday was a complete success from start to finish. The weather was glorious and the run through the beautiful and peaceful Cheshire pasture-lands was most enjoyable. The transport arrangements have been a feature of this Conference, and every one of the dozen coaches left the Adelphi within ten minutes of the scheduled time. Some of the places of interest *en route* are described on p. 166.

On arrival at Llandudno there was an official reception by the chairman of the Llandudno Urban District Council. Having exchanged compliments with Mr. T. E. Lescher, Mr. Corfield and other officers of the Conference and luncheon being disposed of, parties of Conferencers dispersed as they wished to sample the amenities of the famous seaside resort.

On the return journey the excellence of the transport arrangements was again in evidence, for every coach but one left at the appointed minute. The sole exception was a delay occasioned by a last-minute search for the president of the Pharmaceutical Society who had mysteriously disappeared. There was consternation for a short time until it was discovered that he had decided to return by steamer—so all was well.

The close of a momentous Conference was celebrated by a dance and running buffet at the Adelphi, and the enthusiasm shown after what one would imagine an exhausting week indicated the reluctance with which all recognised the end. Throughout the Conference the entertainment provided was of an exceptionally high standard. Apart from the catering (which was excellent), the music, both vocal and instrumental, rather astonished some of the visitors, who apparently undervalued the resources of Liverpool. An extra turn was provided at the eleventh hour by the surprise entertainment given by a very clever couple—Jenny Howard and Percy King—who had been brought up specially from the Garrick Theatre, Southport. They caused great amusement in an interval between the dances, and the chairman of the Conference contributed markedly to the success of the performance, thus indicating his many-sided attainments. In another interlude presentations were made to various members of the Local Committee, including Mr. Humphreys Jones, Mr. W. E. Humphreys, Mrs. Martin S. Hughes and Mrs. Ferriday. The applause accompanying these gifts showed clearly that everyone appreciated the good work that had been done, and as Mr. Lawman said in his reply the smoothness of the working could only have been effected by the willing and capable team work. Although a few were in the limelight it must not be overlooked that it was the careful and methodical unseen work and preparation that counted. In this connexion he mentioned Mr. Hirst (the vice-chairman), Mr. B. Hale, Mr. Martin S. Hughes, Mr. Harold Nixon, Mr. Frank Naylor, Mr. A. S. Chapman and others. He hoped the spirit of camaraderie shown would be continued and suggested a complimentary dinner to the members of the committee, at which he trusted the chairman and the president of the Pharmaceutical Society might be present. In a short and modest speech Mr. Humphreys (who received an ovation) paid tribute to the help he had received from all. Mr. Lawman, he said, "dubbed him Battling Bill, but he could well retort by calling him Faithful Fred." Finally, the sports prizes were distributed, the winner of the Edmund White golf trophy being Mr. F. Bartlett, who also gained the Local Committee's prize. The ladies' golf prize and likewise the ladies' bowls prize were won by Mrs. Frank Naylor. Mr. Spence Culbert was the winner in the bowls competition, and Mr. Thomas Miller excelled at putting.

Trade Notes

CORRECTION.—In the advertisement of Whiffen & Sons, Ltd., Fulham, London, S.W.6, elsewhere in this issue, extract of ipecac. liq. should be described as B.P. and B.P. 1914, and not as stated.

A PHOTOGRAPHIC OFFER.—Johnson & Sons (Manufacturing Chemists), Ltd., Hendon Way, Hendon, London, N.W.4, are again offering to send material and data for five practical demonstrations to photographic societies on application by the secretaries. Full details may be obtained on request.

SHAVING BRUSHES.—Attention is directed in this issue to the Culmak giant Spartan shaving brush which is obtainable on request packed with one dozen Spartan shaving brushes at usual protected prices. Culmak brushes are made by T. W. Culmer & Sons, Vale Road, London, N.4.

DOG MEDICINES.—Cooper, McDougall & Robertson, Ltd., Berkhamsted, Herts, direct the attention of chemists to an easy method whereby three sales may be made when one article only is asked for. An indication is made of the products, namely Cooper's liquid worm remedy, Pulvex vermin powder and Cooper's vitamin ration. Some interesting notes appear elsewhere in this issue.

ANDREWS LIVER SALT.—The holiday season brings opportunities for advancing the sale of Andrews liver salt, which provides a valuable cooling drink. In addition, it helps to counteract the disturbed action on metabolism of changed routine and diet. Showcards and other sales aids are sent on application to Scott & Turner, Ltd., Andrews House, Newcastle-upon-Tyne, 2.

VITASAC, which is described as the perfect baby food and a nationally advertised product, is made by R. Sumner & Co., Ltd., Hanover Street, Liverpool, 1. This food is advertised in carefully selected journals and is a most successful dietetic product for children up to two years. Messrs. Sumner are also headquarters for the supply of drugs, galenicals, surgical instruments, first-aid equipment and proprietary remedies.

A NEW LIVERPOOL VIRUS.—An announcement is made in this issue of the introduction of a new Liverpool virus, the mouse and rat destroyer, which is the result of a recent advance in scientific knowledge. This product is packed in a glass jar and carton which lends itself for counter and window display. Prices and terms are unaltered. The manufacturers are Evans Sons Lescher & Webb, Ltd., Hanover Street, Liverpool.

NEW FOOT CREAM.—Feetees non-greasy foot cream is a new product introduced by Carmac Laboratories, Hampton, Middlesex. A special bonus offer is made, an order for twelve jars being charged as eleven on opening orders to a specified value. The preparation is packed in special display cartons containing six jars in two sizes; a third size is mounted on show display cards of twelve or packed in cartons containing two dozen tins. Supplies may be obtained from the usual wholesalers.

BENERVA SYNTHETIC VITAMIN B₁.—Roche Products, Ltd., 51 Bowes Road, London, N.13, inform us that benerva synthetic vitamin B₁ is now available for oral administration. It is issued in the form of small convenient tablets each containing 1 milligram of pure aneurin (approximately 500 international vitamin B₁ units). Benerva ampoules have been increased in strength to twice that of the former ampoules (approximately 1,000 international units); the price remains unaltered. The tablets are issued in bottles of 20 and 100 and the ampoules in boxes of 6, 12 and 50.

BRITISH-MADE AUBEPINE.—May & Baker, Ltd., Dagenham, Essex, have issued with their July price list a leaflet directing attention to their aubepine liquid which may be used to advantage in the preparation of lilac, mimosa, wallflower and similar perfumes. This May & Baker product is guaranteed free from chlorine and the odour is stated to be comparable with the more expensive grades made from anethol. No discoloration of white soaps has appeared after a lengthy period when May & Baker's aubepine liquid is included in the perfume formula. Specimens and price may be obtained on application.

"C. & D." Retail Price List

THE index figure of cost prices of drugs during the month of July was 152.7, being 0.1 higher than the figure in June and 5.4 higher than in July 1936. The index for surgical dressings remained the same, being 138.5 as against 136.6 in July 1936. The important changes in selling prices for August are set out below:—

Cost		Drugs and Chemicals	Selling Price			
d.	per		16 oz. s. d.	4 oz. s. d.	1 oz. s. d.	1 dr. s. d.
42	lb.	Camphoræ synthet. pulv. ..	—	1 6	0 5	0 1
57	lb.	Camphora (flores)	7 2	2 0	0 7	0 1
76	lb.	Gelatinum, sheet, No. 1 ..	9 0	2 9	0 9	—
38	lb.	Glyc. acidi tannici	—	1 9	0 7	0 1
66	lb.	Glyc. bellad. .. S.I. (5)	—	3 0	0 10	—
96	lb.	Manna elect. nov.	—	3 5	1 0	0 2
66	lb.	Liq. iodi. mitis	8 3	2 4	0 8	0 2
11	oz.	Liq. morphinæ acetatis D.D.	—	—	1 8	0 3
14	oz.	Liq. morphinæ bimeconatis D.D.	—	—	2 0	0 4
54	lb.	Liq. quin. ammon.	—	2 0	0 7	0 1
66	lb.	Ol. amygdalæ dulc. exot. ..	8 2	2 4	0 8	—
90	oz.	Ol. coriandri exot.	—	—	—	1 10
48	lb.	Ol. juniperi ligni	—	1 9	0 6	0 1

Trade-Mark Applications

(From "The Trade Marks Journal," July 21, 1937)

- "BATRIX" and "TRIBAX"; for all goods (1). By I. G. Farbenindustrie A.-G., Grunenburgplatz, Frankfurt-on-Main, Germany. 578,020/021.
- "VELAN"; "PHYOMONE"; for photographic chemicals (1); for agricultural chemicals (2). By British Dyestuffs Corporation, Ltd., Imperial Chemical House, Millbank, London, S.W.1. 578,096/576,058.
- "PYNODEL"; for pine oil disinfectants (2). By Delo Products, Ltd., 83A Amwell Street, London, E.C.1. 575,770.
- "ZULFIOR"; for medicated veterinary preparations (2). By Viosul-fal, Ltd., 4 Finsbury Court, London, E.C.2. 576,348.
- "WYNOSAN"; for all goods (2); for all goods (3). By Amovon, Ltd., Wymbro Laboratories, Southfield Lane, Bradford. 577,627/628. (Associated.)
- Design with words "TOP MILL"; for medicated snuff (3). By J. & H. Wilson, Ltd., Westbrook Hill, Sharrow Vale Road, Sheffield. 571,197. (Associated.)
- "CIRCULIN"; for medicinal chemicals (excluding soap) (3). By Schulte Herbruggen & Co. G.m.b.H., 31 Wetterstrasse, Herdecke (Ruhr), Germany. 575,044.
- "LAMONS"; for cold cream (2); for all goods (48). By E. Hirsch, 16 Rue de Monceau, Paris. 575,840/841. (Associated.)
- "MERRIDOCs"; for medicated sweetmeats (3). By J. W. Lightbown & Sons, Ltd., 3 Manchester Road, Accrington. 577,727.
- Silhouette and word "KALGAR"; for liquid preparation for the throat (3). By J. H. Miller, 301 Park Avenue, New York, U.S.A. 576,171.
- "ENO's"; for medicinal saline (3). By J. C. Eno, Ltd., 160 Piccadilly, London, W.1. 576,448. (Associated.)
- Portrait and signature "LEN HARVEY"; for all goods (3). By L. Harvey's Embrocation, Ltd., 71 High Street, Hoddesdon, Herts. 576,985.
- "DALZO-LASTIC"; for all goods (3). By A. de St. Dalmas & Co., Ltd., Junior Street, Leicester. 577,928. (Associated.)
- "BELCLERE"; for surgical instruments, etc. (11). By Savory & Moore, Ltd., 61 Welbeck Street, London, W.1. 577,993.
- "FALBA"; for perfumery (48). By Pfaltz & Bauer, Inc., Empire State Building, 350; Fifth Avenue, New York, U.S.A. 575,138.
- "FAIRWAY"; for perfumed powdered toilet soap (48). By A. C. Reeve, 18 Northumberland Avenue, London, W.C.2. 577,312.
- "VEEDERZANE"; for hair toilet preparations (48). By J. A. Hofels, 2 Artesian Road, London, W.2. 577,918.
- "ARROW"; for toothbrushes (50). By Addis, Ware Road, Hertford. 577,625.

APPLICATION AMENDMENT

The specification for "SHAMPOL" in Class 48, No. 575,131, by Bowmans (Warrington), Ltd., has been amended to "oil shampoos."

Births

Notices for insertion in this column must be properly authenticated.

MACFARLANE.—At Viewhill Nursing Home, Inverness, on July 29, the wife of George A. MacFarlane, M.P.S., Fort William, of a son.

Marriages

KIME—FORREST.—At Red Hall Methodist Church, Audenshaw, Manchester, on July 17, Samuel Harry Kime, M.P.S., to Enid Mary Forrest.

MADDOCKS—COOPER.—At St. Mary's, Hitcham, Ipswich, on July 31, by Canon Lewis Evans, Richard, fifth son of the late Sir Henry Maddocks, K.C., Wytheford, Pinner, to Margaret Avern, only daughter of Mr. H. E. Cooper (managing director, R. J. Reuter Co., Ltd.), Four Elms, Burnham, Buckinghamshire.

Deaths

CALDWELL.—At Scarborough, on July 28, suddenly, Mr. John Caldwell, M.P.S., 513 Springburn Road, Glasgow, aged sixty-two. Mr. Caldwell was born and apprenticed in Kirkintilloch. He was afterwards with Mr. John McMillan, Great Western Road, Glasgow. He managed Messrs. Anderson & Ireland's business for some time, finally acquiring it. Mr. Caldwell was an active member of Glasgow Pharmacy Club, and served on the local Insurance Committee; he was also a prominent freemason. Mr. Caldwell leaves a widow, two sons and a daughter.

EDWARDS.—On July 31, Mr. Thomas Edwards, 36 Pitfield Street, London, N.1, chemist and druggist, secretary of the North-East London Pharmaceutical Association, aged seventy. Mr. Edwards leaves a wife, a son and a daughter.

HORN.—Recently, while playing cricket, Mr. James Richard Horn, J.P., chemist and druggist, 71-73 Doncaster Road, Goldthorpe, Yorkshire, aged fifty-six. Mr. Horn was vice-president of the Goldthorpe Chamber of Trade, chairman of the Hickleton Golf Club, chairman of the Dearne District Operatic Society and a member of the Dearne Urban District Council. At a subsequent meeting of the Council members stood in silence while the chairman paid a tribute to Mr. Horn's services.

JOHNSON.—At the Royal Infirmary, Sunderland, on July 31, Mr. John Gunn Johnson (Durham County Chemists (Hetton), Ltd.), 18 Front Street, Hetton-le-Hole, aged seventy-eight.

PASCO.—At 57 Hackney Road, London, E.2, on July 28, Mr. George Sidney Pasco, chemist and druggist. Mr. Pasco, who qualified in 1888, carried on business in East London for a lengthy period. He was an active member of the St. John Ambulance Brigade, in which he held the position of Commandant, and he had lately been admitted a member of the Order of St. John.

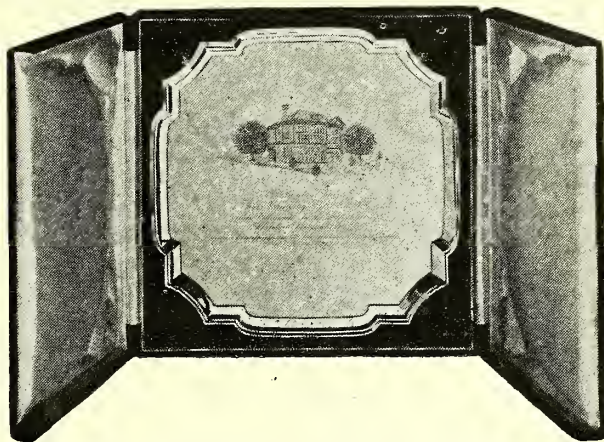
Personalities

MR. R. P. MERRITT, a son of Mr. W. J. Merritt (a managing director of Stafford Allen & Sons, Ltd., manufacturing chemists, London, E.C.2), who was a successful candidate at the recent Pharmaceutical Chemist examination of the Pharmaceutical Society, was apprenticed to Messrs. Stafford Allen and has again joined the staff of the company. Mr. Merritt, jun., received his training in dispensing with Roberts & Co., chemists, New Bond Street, W.1.

THERE are few, if any, Rotary Clubs in Great Britain and Ireland in which pharmacy is not represented, while the year 1937-38 is remarkable for the large number having a pharmacist as president. Blackpool, Mr. J. W. Huddart; Colwyn Bay, Mr. E. A. Neill; Cork, Mr. Alfred R. Lester; Deal, Mr. S. S. Dunn; Dumfries, Mr. H. Spence Culbert; Frome, Mr. R. Roberts; Kensington, Mr. R. W. Brooke; Merthyr Tydfil, Alderman H. M. Lloyd, J.P.; Newquay, Mr. T. M. P. Elford; North Shields, Mr. Henry S. Williamson; Norwich,

Mr. J. de Carle Smith, jun.; Paisley, Mr. A. Scorgie; Pontypool, Mr. W. Morgan; Richmond (Surrey), Mr. W. Morrell; Salisbury, Mr. G. V. Toomey; Isle of Sheppey, Mr. H. I. Thomas, Sheerness; and Teignmouth, Mr. H. E. Belsher. Pharmacy is also strongly represented among the secretaries of Rotary Clubs: Coulsdon (Surrey), Mr. W. E. Foster; Grimsby and Cleethorpes, Mr. O. C. Seaton; Hendon, Mr. T. A. Taylor; St. Albans, Mr. P. H. Warren; Ulverston, Mr. T. B. Horrocks; Walton-on-Thames, Mr. F. W. Thurmott.

ON July 28, Major T. Clemens Usher, J.P., governing director, presided at a gathering of the staff of Fletcher, Fletcher & Co.,



Ltd., Holloway, London, N.7, when two presentations were made to Mr. William Mair, F.C.S., F.R.G.S., senior representative, who is retiring after forty years' service with the company. Mr. Keith Rayment, director, was also present, and Mrs. T. Clemens Usher, in a graceful speech, presented the gifts to Mr. Mair. That from the directors, including herself, consisted of a silver salver engraved with a replica of the architect's drawing of the Vibrona Laboratories which was exhibited in the Royal Academy some years ago. The staff and representatives gave a synchronous electric clock. Major Usher paid a warm tribute to Mr. Mair's zeal, industry and success, and Mr. E. A. Wilson, sales manager, expressed the appreciation of the staff. Mr. G. E. Cecil, head of the office departments, thanked Mrs. T. Clemens Usher for her presence and for making the presentation on their behalf. A further token of their respect and esteem was an address in the form of a folio on vellum, printed in the company's works and bearing the signature of every member of the staff. The finishing ribbon was not, however, identifiable as the clan tartan of any of the Scotsmen present! The salver is inscribed: "Presented to Wm. Mair, Esq., F.C.S., F.R.G.S., on his Retirement, by the Directors of Fletcher, Fletcher & Co., Ltd., as a token of their appreciation of Forty Years of devoted service in the Company. 1898-1937."

Business Changes

BOOTS, LTD., are opening a branch in Leven, Fife.

MR. A. LAIRD PARKER, B.Sc., M.P.S., has opened a pharmacy at 88-92 George Street, Oban, Argyll.

L. W. KINLESIDE, LTD., have acquired the business of Bruces, Ltd., at 106 Northfield Avenue, London, W.13.

Recent Wills

MR. GEORGE EDWARD, 123 The Broadway, Southall, Middlesex, chemist and druggist, who died on March 24 last, left estate gross value £18,963, with net personality £18,634.

MR. JOE HARRY TAYLOR, Lytham St. Anne's, Lancs, chemist and druggist, who had been a county magistrate for twenty-one years, died on April 29 last, aged seventy-two, leaving £9,618, with net personality £9,329.

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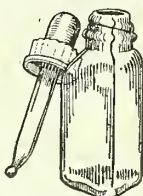
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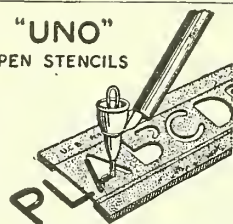


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INFORMATION WANTED

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A/38. Amphar (for lumbago)
B/31. Eglantine bath salts
B/31. Eyegene eye drops

H/31. Ferro-aluminiac
E/31. Neufferinos tablets
B/38. Orestonum (colour re-
mover)

THE CHEMIST AND DRUGGIST

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Our No. 3000

THOSE of our readers who take a friendly interest in our domestic affairs—and we believe they form the majority—will be pleased to know that this week we publish our three-thousandth number. No. 1000 of THE CHEMIST AND DRUGGIST was our issue for March 25, 1899. Its contents included several items which might, *mutatis mutandis*, have been topical in our present issue. A few relics of John Dalton had just been presented to the Chemical Society; among them was a visiting card given by Mr. S. W. Woolley, who afterwards became our Editor. Professor Dewar was busy with liquid hydrogen, the boiling point of which was under revision. "The British Medical Journal" was urging the Pharmaceutical Society's Council to try to get carbolic acid scheduled as a poison; and a C. & D. Poisons Regulations competition was completed with a final instalment of replies and the award of prizes. Our correspondence columns were, as usual, rich in practical suggestions. Dr. Ernest J. Parry warned our readers regarding a prevalence of adulterated essential oils and a corresponding activity on the part of public analysts. Dr. J. C. McWalter wrote asking for more detailed information about digitoxin. Mr. George Roe discussed the preparation of turpentine liniment; and three correspondents (one of whom was in his ninety-fourth year) gave their views on the Poisons Regulations then recently approved by the Privy Council. The event escaped our notice at the moment; but in the next week's issue we commented on it thus:—

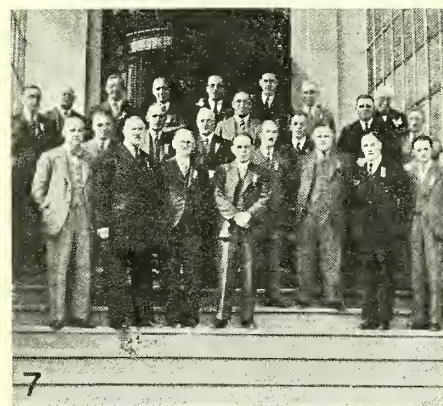
... on the cover the number was designated the 988th. It appears, however, that somewhere in the days of our youth a miscalculation involving an error of twelve numbers was made. . . . Our office arithmeticians have plodded through this series of nearly forty years' publications and have found that the issue of last week, March 25, 1899, was certainly, as we have said, the millenary one.

Our No. 2000 was the issue for May 25, 1918. The strenuous conditions of what proved to be the final six months of the war were reflected in the curtailment of the number of our pages and the general reduction in the size of the types used. Government control was evidenced in the publication of the Sugar Restriction Order, 1918, the Ammonia Control Order, 1918, and other mandatory proclamations. Military tribunals were examining the claims of pharmacists and their assistants for exemption, temporary or permanent, from military service. Xrayser commented on the fact that Miss Buchanan and Mr. Wolff had been returned to the Council of the Pharmaceutical Society for the first time, and on the weakness of the presidential address at the Society's annual meeting. Mr. D. B. Dott contributed some sound observations on the Qualifying examination. In an editorial article we mentioned that during the few preceding months the prices of over 900 proprietary articles had been advanced, and pointed out the difficult position of retailers in this matter. Our No. 2000 was even more unfortunate than its exemplar No. 1000, its advent being overlooked in the wartime stress till it was too late to make any reference to it. Our subscribers who remember the events of the year 1899 will, perhaps, be tempted to reflect on the changes, some of them important, that have taken place in the orientation of public affairs, including those of pharmacy, in the thirty-eight years that have elapsed. In our survey of No. 1000 we remarked: "In some respects, no doubt, the chemist of the [eighteen] fifties was a happier man than his successor of the nineties. . . . But whether he wished it or not, he had to move on or be moved off." This principle will, we think, be equally applicable when the time of publication for our four-thousandth issue arrives.

K.I.D. List Amendments

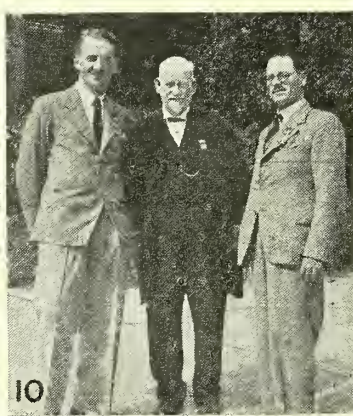
It is some sixteen years since the Board of Trade issued the original List of Articles chargeable with duty under Part I of the Safeguarding of Industries Act, 1921. From that year up to 1936 the department had no power to amend the List except, of course, by order of the Referee. Under Section 5 (3) of the Finance Act, 1936, they were given authority to make such deletions or amendments. It is only natural that, over such a period of years, a general revision should be necessary. The department issued a seven-page pamphlet of amendments and additions to the List of K.I.D. articles (C. & D., July 31, p. 135). These alterations are of the first importance to the fine chemical industry of this country as well as to the importers of such products and, we suggest, it is essential in the general interests of the trade that the effect and incidence of the amendments should clearly be understood by the trading community. The amendments consist of a list of some sixty-seven items which are now to be struck out of the List, all of which are the trade or proprietary names of products. The chemical equivalents of these trade articles are to remain in the List. We asked the authorities precisely what was to be the effect of these amendments as regards the basis of valuation on which duty is assessed. Were we, for instance, to assume that, now the identity of the articles under their trade or proprietary name was to be deleted from the List, such products would, if entered and declared under their trade or proprietary names, no longer be liable to K.I.D., but only to the 10 per cent. general *ad valorem* duty, or alternatively, if entered and declared under their chemical equivalent descriptions, which are included in the List, would they be valued at the market value for such chemicals and not on their value as proprietary articles? At the moment the department is unable to furnish a definite answer. We may be entirely incorrect in our assumption as to the incidence of these amendments; but we suggest the trade, whether manufacturing or importing, is entitled to an immediate and definite ruling as to what, if any, is the effect of the amendments now notified.

BRITISH PHARMACEUTICAL CONFERENCE 1937



1. Mostly delegates from Manchester.
2. Lord and Lady Leverhulme, and Mr. F. A. Lawman (left).
3. Delegates from Scotland.
4. The ladies who visited the New Brighton Lido. Mr. H. C. Tristram (Wallasey) in front row, and Mr. Evans (Cambridge) at the end.
5. L. to R.: Messrs. H. C. Tristram, W. J. Tristram, W. E. Humphreys, and Atkinson (chairman N.P.U.).
6. Leaving Hulme Hall after lunch on Wednesday.
7. Some members of the Local Committee.
8. L. to R.: Mesdames Lester, Noble, Chalmers (with Mr. Lester) and Mrs. Ferriday pause on the "Prom" at New Brighton.
9. Welsh delegates with the president (Mr. Marns) on the steps of the Adelphi Hotel.
10. The new chairman and his secretaries (Messrs. Corfield and Boyes).
11. From Northern Ireland.

Photos on this page by J. Cleworth.



BRITISH PHARMACEUTICAL CONFERENCE

Proceedings

(Concluded from THE CHEMIST AND DRUGGIST, July 31, p. 131)

Science Session

Thursday Morning, July 29

THE Science Session of the Conference was resumed at 10 a.m. on Thursday morning under the chairmanship of Mr. T. Edward Lescher. The first paper read was:—

Pungency Values of Capsicum and Tincture of Capsicum

By H. BERRY and E. K. SAMWAYS

[ABSTRACT]

THE pungent principle of capsicum is the only important consideration medicinally. The authors review standards in the B.P., in the U.S.P., and in the Swiss Pharmacopœia and describe tests carried out to examine the pungency values of capsicum and of tincture of capsicum and, if possible, to suggest controlling standards. As oleoresin capsici, B.P.C., contains the whole of the pungent principle it was hoped that a direct relationship might exist between the percentage yield of this oleoresin and the pungency of the drug as determined by a tasting method. This was not realised, but figures were obtained for yields of oleoresin from various types of capsicum, and these were recorded. Pungencies were compared by a modification, suggested by H. O. Meek, of the U.S.P. test, and stated as twice the reciprocal of the dilution found to be pungent; thus a sample giving a positive reaction at a dilution of 1 in 60 is said to have a pungency of 120. The services of a large number of "tasters" were enlisted, and the majority, about 60 per cent., recorded the pungency at the same figure, the others being only one step below or above. The pungency values of various samples of capsicum were estimated by the above method, the samples being random specimens obtained on the market in the entire condition. They were all examined microscopically and classified according to their botanical sources. The yield of Codex oleoresin was also determined for some of the samples. It was found that the pungency value and oleoresin content were not proportional. *C. minimum* samples (all of which complied with the requirements of the British Pharmacopœia) were found to have pungency values between 80 and 150, whilst samples of *Capsicum annum* and Japanese fruits gave lower values between 30 and 60. In the opinion of the authors a reasonable minimum limit would be a pungency value of a hundred. This would exclude all Japanese and *C. annum* fruits. The United States Pharmacopœia limit test corresponds to a pungency of about 110-120, which may be intended to fix the pungency between narrow limits, but if it is merely to exclude fruits other than those of specified dimensions, it seems unnecessarily high. A method is suggested for the control of the pungency of samples of capsicum, but the authors have not been able to devise a test to determine whether tincture of capsicum has been made with *C. annum* or Japanese fruits; a pungency test for the tincture, based upon Meek's test, is described. It is claimed that this would ensure some uniformity and exclude grossly inferior preparations, such as are at present on the market.

The authors express their thanks to Mr. H. O. Meek for information and samples, to Mr. T. E. Wallis for help in obtaining and classifying a number of samples, and to students in the College for assistance as "tasters."

(From the pharmacy research laboratory of the College of the Pharmaceutical Society at the request of the British Pharmacopœia Commission.)

DISCUSSION

THE CHAIRMAN remarked that prior to the reading of the paper he had been inclined to doubt the practical value of the tasting tests. Any paper on spices was valuable, because many commercial examples were of low grade.

Mr. BENNETT, as a member of the Pharmacopœia Commission and chairman of the appropriate subcommittee, put on

record the thanks of his colleagues for the work done; the test seemed an improvement on the U.S.P. test.

Mr. DEANE suggested that there might be a cumulative effect of the pungency which must be considered in making the tests.

Mr. MEEK put forward the view that the most satisfactory tasters were to be found among the younger workers. He had questioned the figures given in comparison with the U.S.P. figures. The authors had dealt with an amount of 5 mls of a 1-70,000 solution, while the U.S.P. took 3 mls of a 1-50,000 solution, which seemed a less total dose but yet had a greater pungency value. His own experiments confirmed this. The conclusion was that concentration and not dose was the important factor. His experience in the matter of comminution had been that a moderately coarse powder was adequate, although the use of a coarse powder resulted in a considerable loss.

Mr. WALLIS remarked that Japanese capsicum had at present no botanical name; the paper strongly suggested that it was a distinct variety.

Mr. STEVENS drew attention to the wide variations in oleoresin capsici, B.P.C., to be expected from the conclusions of the paper; tests were required.

Mr. SAMWAYS, replying, admitted that the expertness of the tasters was to be considered, but he and his co-worker had found persons consistent, some "standard," some hypo- and some hyper-sensitive. It was also true that there was a cumulative effect, and their experience had been that an interval of fifteen minutes should be allowed. He acknowledged that young tasters had been employed, but it had not struck him that this was essential. An experiment had been made in varying the degree of comminution of the powder, and results of 40, 60 and 60-65 had been obtained from coarse, moderately coarse and moderately fine powders from the same sample. The question of applying tests would probably be followed up.

The second paper at the morning session was taken as read. It was

Notes on Eusol and Camphorated Chalk

By C. L. M. BROWN

[ABSTRACT]

EUSOL.—At the present time there are two formulas for eusol, one in the National Health Insurance Formulary and one in the British Pharmaceutical Codex. They are both prepared from chlorinated lime, boric acid, and distilled water, but differ in the quantities used and in the directions for preparation. The literature does not appear to contain any references to any specific temperature that should be used for either preparation or storage. In a letter the author suggested that variations in strength were due more to temperature than to any other factor. Records extending over four years are here put forward in support of that suggestion.

In order to cover all conditions the following method of preparation is suggested:—Chlorinated lime, 12.5 gm.; boric acid, 12.5 gm.; water (preferably at 9° C. or lower), 1 litre. Reduce the chlorinated lime to fine powder, triturate it with half the water to form a paste, add the remainder of the water in which the boric acid has previously been dissolved, stand for at least fifteen minutes, and filter. It should be stored in well-closed containers in a cool place (preferably below 9° C.) and protected from light, and should not be used when more than three weeks old.

A seasonal variation in the available chlorine content of eusol has been demonstrated, February and March giving a high figure and September giving a low figure. It has been shown that eusol is best stored at temperatures below 9° C., and that freezing removes water in the form of ice and concentrates the hypochlorous acid.

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CAMPHORATED CHALK.—Referring to the formula for camphorated chalk in the British Pharmaceutical Codex, 1934, the author notes that a formula calculated to give about 10 lb. gave a final product of about 10½ to 11 lb., the excess weight being due to water. An examination of the precipitated camphor showed that it held a considerable amount of water in spite of long draining. The determination of the water was made by the following method:—Accurately weigh 5 gm. into a stoppered graduated tube; add 5 mls of xylene, shake well and allow to separate. Read off the volume of the lower layer of water. In a small experimental batch, using 10 gm. of camphor, the wet precipitate was drained for fifteen minutes and then spread out in a thin layer on a circle of filter-paper, and left uncovered to dry. Assayed immediately after spreading it contained 60 per cent. v/w of water; after nineteen hours' drying it contained 8 per cent. v/w of water.

A table showing an experiment on a large scale is given. The author points out that camphorated chalk, when freshly prepared, may contain only 9 per cent. w/w of camphor, and the advisability of indicating a percentage limit is suggested.

(From the laboratories of Blackwell, Hayes & Co., Ltd.)

DISCUSSION

MR. POWELL suggested it was not the intention of the Codex to make a 9 per cent. camphorated chalk, and that it was dangerous to adopt this limit owing to the difficulty of keeping the chalk after it was made.

MR. WALMSLEY said he thought few makers prepare their camphorated chalk by the B.P.C. method. Camphor tends to sublime quickly from chalk exposed to the air. As regards eusol, no reference was made to the calx chlorinata used. The B.P. gives a minimum strength of available chlorine but no maximum. During the last few years the strength of chlorine available has been considerably raised.

The next paper taken was:—

Compound Tragacanth Powder as a Suspending Agent

By JACK MARRIS ROWSON

[ABSTRACT]

ALTHOUGH the presence of acacia and tragacanth in emulsions has been studied by Krantz and his co-workers, Smith and Hazley and other investigators, only a brief note by White to the British Pharmaceutical Conference in 1905 and a passing remark by Middleton in 1927 have been found to refer to the viscosities of the mixed mucilages of these two gums.

A bulk supply of British Pharmacopœia mucilages of acacia and tragacanth were prepared using commercial samples of powdered acacia and powdered tragacanth gums. The prepared mucilages were allowed to stand for forty-eight hours with occasional shaking, and from the products masses of 300 gm. of mixtures of the two mucilages were prepared of differing w/w concentrations. (Three tables are given.)

These results indicate that although the viscosity of mucilage of acacia is approximately one-hundredth that of mucilage of tragacanth, yet the addition of the latter to the former brings about a decrease in viscosity, this decrease in viscosity attaining a maximum at the concentration of 20 per cent. of mucilage of acacia and 80 per cent. of mucilage of tragacanth, when the viscosity of the mixture is only 25 per cent. of that of mucilage of acacia alone. The mixtures result in the flocculation of the tragacanth as a consequence of the dehydration of the gel particles by the high concentration of the true lyophilic solution of acacia. Thus, the resulting viscosity is a function of the acacia present under the disturbing influence of a second substance which brings about a decrease in viscosity. The same conclusions are borne out when working with 1 in 8 dilutions of the mixed mucilages as would be used in dispensing work, although a minimum viscosity and suspending power are attained at a concentration of 70 per cent. of mucilage of acacia and 30 per cent. of mucilage of tragacanth when determined at this dilution, whilst in the undiluted condition a minimum viscosity was attained with 80 per cent. of mucilage of tragacanth.

The conclusions arrived at led to an examination of the efficacy of compound tragacanth powder B.P. as a suspending agent for insoluble solids. A preliminary investigation showed that the viscosity of a mucilage containing 10 grains of com-

pound tragacanth powder in each fluid ounce was lower than that of a mucilage containing the equivalent amount of 1.5 grains of tragacanth alone. This decrease in viscosity of the tragacanth constituent of the compound powder may be brought about by the presence of starch or sucrose as well as by the presence of acacia, since these are the constituents present. To determine the effect of each upon the viscosities of the other constituents a 1.35 per cent. mucilage of tragacanth, and a 1.80 per cent. mucilage of acacia were prepared from good commercial samples of powdered gums and using chloroform water as vehicle. A 1.80 per cent. suspension of starch and a 4.05 per cent. solution of powdered sucrose in chloroform water were also prepared, and when equal weights of these four solutions or suspensions were mixed, a product representing a 2.25 per cent. mucilage of compound tragacanth powder (10 grains per fluid ounce) was obtained. Equal weights of each constituent were also mixed in pairs with twice the weight of chloroform water to represent the concentrations present in the 2.25 per cent. mucilage, whilst a similar result was attained for each individual component by the addition of thrice the weight of chloroform water to the concentrated preparations. As an additional control, a sample of the compound powder was prepared using the same batch of constituents as employed above, and a 2.25 per cent. mucilage of this powder was made, using chloroform water as solvent. (A table is given.)

From the results it is seen that a considerable decrease in viscosity accompanies the addition of 0.45 per cent. of acacia to a 0.3375 per cent. mucilage of tragacanth, and the viscosity of such a mixture is almost identical with that of the four components representing compound tragacanth powder. It may also be noted that the viscosity of a 2.25 per cent. preparation of compound tragacanth powder is somewhat lower than that of the product obtained by mixing aqueous mucilages and suspensions in the same proportions. From the results given in the author's fifth table it is seen that the presence of acacia in compound tragacanth powder brings about a considerable decrease in the suspending power of the 0.3375 per cent. of tragacanth also present, thus confirming the deductions made from viscosity measurements. The addition of calcium chloride to these suspensions was made in order to determine if the compound powder would prove more satisfactory than tragacanth alone in the presence of soluble electrolytes, but this was not found to be the case, and hence no justification for the use of the compound powder could be proved. It is suggested that the acacia be omitted from this preparation, the starch and sucrose being retained to ensure smooth dispersion of the tragacanth when mixed with water.

The author expresses his thanks to Mr. H. Brindle, under whose direction this work has been carried out. (From the Pharmacy Department, Victoria University of Manchester.)

DISCUSSION

THE CHAIRMAN said the question arose whether the arguments pointed to the omission of acacia or to the increase of tragacanth.

MR. BENNETT asked for the opinions of the Science members whether pulv. trag. comp. should be omitted from future pharmacopœias or modified in formula.

MR. DEANE commented on the curious inclusion of starch in the formula. In an attempt to find the explanation he had looked up the history of the formula. He had found the powder was included in the seventeenth-century pharmacopœias as a demulcent and not as a suspending agent.

MR. STEVENS suggested that compound tragacanth powder was more easily dispersed than tragacanth.

MR. JONES characterised the paper as "very pharmaceutical," but before its conclusions were adopted wide investigation was necessary. His experience with barium sulphate suspensions confirmed that addition of acacia immediately reduced the suspension of sulphate. He was advised that its presence in such mixtures was also harmful in retarding elimination.

MR. BRINDLE replied that he and his colleague had tried to find an explanation of the inclusion of pulv. trag. comp.: apparently members of Conference could not supply it, and therefore the omission of acacia should be safe. The powers of dispersion had been shown to be due to the starch. Variations in tragacanth samples had been dealt with in papers at earlier Conferences.

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The next paper was

Preservation of Concentrated and Fresh Infusions

Part I.—The Applications of Heat and Alcohol

By KENNETH BULLOCK and C. J. L. ELSDON

[ABSTRACT]

THE spoilage of infusions may be due to at least three causes. First, the decomposition of the active constituent or constituents by purely chemical means, for example, hydrolysis. Secondly, deposition of a sediment or production of other unsightly change brought about by chemical or physical processes. Thirdly, increase in the number of micro-organisms which of necessity results both in the formation of insoluble matter and in the decomposition of at least some of the constituents of the infusion. (The authors review the literature of the subject.)

Aqueous extracts of the various drugs, made in the cold, were allowed to go bad and the deposit was examined microscopically. In all cases, except that of the extract of clove, bacteria moulds and yeasts have all been found. The clove extracts examined supported only mould growth. Probably this is due to the presence of tannin in the cloves rather than to the eugenol, as the authors have found the same behaviour in the case of extracts of krameria and rhubarb. Moulds are slower in development than bacteria or yeasts. Yeasts have only been found during the summer months so far. They appear to be more susceptible to the action of heat and alcohol than the bacteria and moulds.

To ascertain the degree of contamination of the original drugs 1 gm. of drug was shaken frequently with 100 mls of sterile water during half an hour, filtered aseptically and 1 mil, 1/10 mil, and 1/100 mil plated on ordinary agar media. (A table is given.) To ascertain the degree of contamination of the official fresh infusions, 200-mil quantities of all the official fresh infusions were prepared in an ordinary infusion pot, no special precautions being taken, except that in the case of the hot infusions the pot was previously warmed with hot water, and care was taken that the water used in the preparation of the infusion was really boiling. After standing for the prescribed time the infusion was strained through a sterile cotton-wool plug into a sterile bottle and allowed to cool. One mil was then plated. (The results are shown in a table.)

After reviewing the literature of preservation of concentrated infusions by means of alcohol, the authors give experimental details of variations in bacterial contamination during preparation (with three tables), the minimum quantity of alcohol which will prevent increase in the number of organisms during manufacture and on subsequent storage (with fifteen tables), effects of more prolonged storage (with table), stability of the concentrated infusions against infection with organisms from the atmosphere (with four tables), bacterial contamination of commercial concentrated infusions (with table), and hydrogen ion concentration (with table). The authors draw the following conclusions:—

There appears to be demand for perfectly clear and bright concentrated infusions. One can understand the desire for a non-sedimenting preparation, but if, in fact, on dilution a concentrated infusion yields a perfectly clear solution, then the equivalent of a fresh infusion is not obtained. Most of the fresh infusions are by no means clear and bright. If one clarified them one would remove either volatile oil or colloidal matter such as starch, mucilage or gums. The inferiority of concentrated infusions is doubtless due to some extent to the fact that the added alcohol precipitates, and therefore removes, some of this colloidal matter which, if present, gives to the preparation a smooth and attractive taste. It follows that, apart from any considerations of economy, concentrated infusions should contain the minimum quantity of alcohol necessary for preservation.

The figures of two tables show that large doses of air organisms are rapidly destroyed by alcohol, the bacterial content of the contamination infusions soon returning to what it was before infection. That drugs contain more resistant organisms is shown by an examination of four tables, where the figures indicate that extended storage with even alcohol (25 per cent.) does not result in sterility. That many organisms are removed by filtration through filter-paper or by careful decantation is shown by comparison of the figures for deposit

and for freshly decanted infusions in seven tables. A contaminated infusion may result if filtration is not efficient or if an insufficient quantity of deposit is present.

When a concentrated infusion is prepared the alcohol first of all brings about a great reduction in the number of bacteria present. Then follows a phase when the more resistant organisms persist but do not increase. Gradually these become entangled in the flocculating colloidal matter and are carried to the bottom of the container in the deposit. Thus by sedimentation and filtration they are removed, an almost sterile infusion in many cases resulting. If the drug itself does not contain any antiseptic principles alcohol (15 per cent.) is required to prevent the multiplication of organisms during manufacture and to prevent multiplication of air organisms entering later.

Concentrated infusion of senna need only be made with alcohol (10 per cent.), since tincture of ginger is added later. The tincture of ginger appears to have some antiseptic action apart from the alcohol which it contains. Concentrated infusion of clove is self-sterilising owing, the authors believe, not so much to the presence of eugenol as to the presence of tannin. They have also found krameria and rhubarb to yield sterile concentrated infusion. Mould growth must, however, be prevented (moulds grow well in the presence of tannin), and they suggest the use of alcohol (10 per cent.) in the preparation of concentrated infusion of clove. As shown in the section dealing with preservation by means of heat, concentrated infusions, of whatever composition or alcoholic strength, can be rendered sterile by maintaining at the boiling point for a short time. They need then only be protected against air organisms either by aseptic treatment or by addition of alcohol (15 per cent.).

(From the Department of Pharmacy, Victoria University of Manchester.)

DISCUSSION

MR. BENNETT said that many would be glad to note that concentrated infusions are not so good as those freshly made. The study of infusions by bacterial count seems to be new and valuable. Also the investigation as to the minimum quantity of alcohol was a valuable piece of work.

MR. DEANE hoped that the Pharmacopœia Commission would not accept the conclusions, and he anticipated trouble if infusions were sent out with just the minimum of alcohol. He regarded 18-19 per cent. of alcohol as desirable. Fresh infusions were not bright but chemists demanded that concentrated ones should be bright and it was easier to present them thus if a larger amount of alcohol was present.

MR. POWELL agreed with the previous speaker as to the reduction of alcohol. Reduction, though attractive so far as cost was concerned would, he thought, result in trouble. As regards the boiling of senna, though this might be satisfactory in making a small quantity of infusion, it might be somewhat risky if done on a large scale.

MR. A. RAE asked whether the flavour of orange and gentian infusions would not be impaired.

MR. J. RAY had found that boiling was satisfactory in the case of quassia and calumba when made on a large scale. Surprisingly, buchu is not self-sterilising and he thought the effect of heat on senna was an important point to bear in mind.

MR. WALMSLEY said it was a pity that the whole of the concentrated infusions had been taken together. Buchu contains a mucilage and phenolic substance, the preparation varying according to the strength of the alcohol used. Infusions of buchu on the market vary enormously. The essential oil plays an important part in the therapeutic activity. Mr. Bullock dealt with the subject from the academic point of view, and Mr. Deane from the manufacturer's. Reduction of the amount of alcohol causes deposit, particularly on keeping. He thought that fresh infusions could be omitted from the Pharmacopœia, except perhaps in the case of digitalis.

MR. FRANKLIN asked if the authors intended to apply the tests under the conditions found in ordinary business, e.g., the concentrated infusion must be such that it will keep at least two years, and preferably three to four.

MR. BULLOCK, in reply, stated that the deposit protects the organisms, and he thought carried them down. The authors had attempted to find out whether twenty-five or a lesser percentage of alcohol was sufficient, and it was as a result of their experiments that they had suggested 10 per cent. It was quite reasonable to suppose that their infusions had been kept under

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good conditions; but actually the reverse was the case. As to whether infusions should be clear and bright, he asked whether one should consider the chemist or the patient, and the same applied in the case of fresh or concentrated. Medical men considered the flavour and therapeutic activity, and filtering out the mucilage may deprive the patient of some medicinal effect. Boiling was not necessary for orange, clove or gentian infusion. Buchu is one of the most highly contaminated infusions, and the organisms are particularly susceptible to alcohol.

The next paper taken was:—

Decomposition of Paraldehyde, B.P.

By JAMES S. TOAL

[ABSTRACT]

DURING the past two years a large number of samples of paraldehyde have been examined with particular regard to the decomposition that takes place during storage. The British Pharmacopœia, 1932, gives directions that "paraldehyde should be kept in a small well-filled bottle, protected from light, and stored in a cool place." But commercial practice calls for the material to be dealt with in drums, carboys and demijohns; and smaller packages such as winchesters and 1-lb. bottles are again made up from these, and these again have to be broken in quantity as the goods are consumed. Thus, although the storage recommended by the Pharmacopœia undoubtedly preserves the material, the ideal conditions cannot be attained in practice.

Seven 1-lb. samples of paraldehyde were obtained from some of the leading manufacturers. Four of the samples were in 16-oz. amber bottles, one in a 16-oz. white bottle and one in a 24-oz. amber bottle, all being corked. One sample was in a 24-oz. amber stoppered bottle. These samples were examined at the time they were received and then stored in a cool cupboard, at a maximum temperature of 15° C., for re-examination. (The results of the investigation are given in a table.) When received, samples 1, 2, and 5 did not comply with the requirements of the British Pharmacopœia, and in the ordinary way a buyer would have been justified in rejecting them. Sample 3 appears separately in another table, because it was treated slightly differently from the other samples in order to observe the effect of air on the material in a partly full bottle.

An examination of the tables will show that after two months' storage, during which time the samples had been protected from light, all had deteriorated with the exception of sample 4, and this showed no change. The different figures show the variability of the decomposition that took place, but special attention is drawn to the increase in the specific gravity.

In order to observe the effects of time and conditions of storage on freshly distilled paraldehyde, a litre of paraldehyde was distilled so as to be well within the pharmacopœial limits, and then stored in the following way:—(1) A 6-oz. amber stoppered bottle completely filled and exposed to light. (2) A 6-oz. amber stoppered bottle stored in darkness. (3) A 6-oz. white glass stoppered bottle completely filled and exposed to light. (4) A 6-oz. white glass stoppered bottle stored in darkness. (5) A 48-oz. amber stoppered bottle containing 6 oz. of paraldehyde and exposed to light. The samples were tested for acidity, aldehyde content, peroxidised compounds and specific gravity after two, four, and eight weeks' storage. The results are set out in a third table. All samples deteriorated quite rapidly, although the aldehyde remained unchanged, and the conclusions drawn were that storage in the dark gave no marked protection against decomposition; that the greater the air space in the bottle the greater the decomposition and the more rapid; and that paraldehyde stored in white bottles decomposed more quickly than that in amber bottles. This latter observation must be taken with some reserve.

The progressive decomposition of certain organic bodies, and even some inorganic compounds such as hydrogen peroxide, is often inhibited by the use of preservatives. No doubt a number of these so-called preservatives remain the secrets of the manufacturers, but a considerable list could be made up from recommendations published from time to time, and a recent Safety Circular No. 80, issued by the Association of British Chemical Manufacturers, in which the subject of peroxidised compounds in ether is dealt with, is of interest in this respect. From the experience gained in conducting the

work reported in this paper, it appears desirable that the use of a preservative should be considered by the Pharmacopœia authorities.

The author acknowledges the revision of the paper by Mr. A. J. Jones, and the permission of Evans Sons Lescher & Webb, Ltd., to publish it. (From the laboratories of Evans Sons Lescher & Webb, Ltd.)

DISCUSSION

MR. JONES confirmed the conclusions of the paper. Dispensers should always bear in mind that they were dealing with unstable bodies and order paraldehyde in small quantities at frequent intervals.

MR. BENNETT was in agreement that some official sanction should be given to the use of a preservative. He was in doubt what it should be and asked the author for some specific suggestion.

MR. TOAL, replying, stated that of seven samples tested he had found only one stable, and that was labelled Paraldehyde, B.P. He had assumed the presence of a preservative but had not been able to detect it. He suggested that phenols of the resorcinol type should be investigated as suitable preservatives.

The next two papers on the agenda were by Mr. R. Maxwell Savage and were taken together:—

Experiments on the Sterilising Effects of Mixtures of Air and Steam and of Superheated Steam

By R. MAXWELL SAVAGE

[ABSTRACT]

RECENT work which tended to show that unless air was removed from sterilisers the results were liable to be faulty was found by the author to have been based on a method of removing the air by blowing steam through the autoclave. This process being itself of the nature of sterilisation, experiments were carried out to determine how far the effects noted were really due to the specific action of air in interfering with sterilisation and how far the practical method of removing the air was in effect prolonging the sterilising period. Glass tubing of approximately 3-mm. bore was used, some powdered earth added, and as a source of steam which would not damp the spores, cotton-wool was added. The tubes were then drawn out to a capillary and connected to a vacuum pump. When the desired degree of vacuum was obtained the capillary was drawn off and sealed, the tubes being placed in a glycerin bath at 115° C. and left for varying times. The results are shown in the following table:—

Experiment No.	Temperature °C.	Air pressure mm.	Time, minutes	Results
1	115°	60	15	+
2	115°	60	15	—
3	115°	30	15	—
4	115°	760	15	—
5-8	113°-117°	760	10	— — — —
9-12	113°-117°	60	10	— — — —
13-14	113°-117°	Open tubes as control	10	++
15-18	115°	760	5	— — — —
19-22	115°	60	5	++ — —
23-24	115°	Open tubes as control	5	++

It was decided to make an attempt at a quantitative survey of the question whether superheated steam is inferior to saturated steam as a sterilising agent. From the results it was obvious that the spores were not killed even by much longer exposures in the chamber than were actually used. The results of the experiments were shown graphically, and conclusions were drawn as summarised below:—

(1) There is no evidence that mixtures of air and steam are less effective than steam alone, provided that the spores are exposed to the saturated atmosphere and are really at the temperature they are thought to be, and provided that the method of removing the air is not such as itself to constitute a sterilising process.

(2) Steam does not lose its sterilising power as soon as any degree of superheating exists, but continues to be effective when superheated by 5° to 15° C. or more, depending on its initial temperature.

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(3) It is suggested that the cause of the continued effectiveness is that the essential feature of steam sterilisation is the equilibrium between the aqueous solution which constitutes the bacterial cell and the steam atmosphere, which is attained not when the steam is saturated with respect to pure water, but when it is saturated with respect to the solution.

(From the laboratories of S. Maw, Son & Sons, Ltd.)

Note on the Penetration of Heat into Dressings Enclosed in Drums

By R. MAXWELL SAVAGE

[ABSTRACT]

In a previous paper [*C. & D.*, 1936.2.14] one of the conclusions was that within the range of sizes of package which were studied, it did not matter how they were arranged in the steriliser. Hospitals almost without exception use drums to enclose their dressings. The author experimented, by combined thermo-electric and bacteriological investigations, to determine whether a drum acts as one large package of the dimensions of the drum itself, or whether each dressing receives its supply of steam so readily that penetration is immediate.

Two drums, 12 inches in diameter and 5 inches deep, were taken, and in one of them the holes in the sides closed by soldering. Thermocouples were inserted into 6-yard rolls of unwrapped gauze in both drums, which were then filled up with miscellaneous charges of material, lint gauze and cotton wool. Packets of earth were also inserted as near the centre of the rolls of gauze as possible.

The results obtained, which were entirely confirmatory of the work done by Hall and Chapman in 1925, were illustrated graphically.

The summary of conclusions is as follows:—

1. The drums used in hospitals for containing dressings undergoing sterilisation are hindrances to effective penetration, and act, as far as heat penetration is concerned, by converting the separate dressings into one large package.

2. Penetration of heat into these drums takes place by a successive series of processes—direct flow of steam into the space at reduced pressure; compression of the residual air; and finally, in the inner parts, conduction, convection, radiation, as well as heating by steam generated by these effects from the cotton itself.

3. The holes in the drums play an important part, even in so-called vacuum sterilisation.

4. Penetration is not so certain as when dressings are in crates or bags, and the process is one which requires good control and adequate allowance for varying conditions if it is to be effective.

Acknowledgment is made to Mr. S. Whatmough for co-operation in connexion with the large autoclave, and to Mr. John Maw, B.A., who carried out the thermal measurements.

(From the laboratories of S. Maw, Son & Sons, Ltd.)

DISCUSSION

THE CHAIRMAN said it was not generally realised that there were many practical difficulties in large-scale sterilisation.

MR. GAMBLE pointed out there were (1) people who produce apparatus for sterilising purposes; (2) those who put out sterilised dressings. The points raised by Mr. Savage were of great importance, particularly in relation to the small hospital. Much sterilising work in these establishments was unsatisfactory owing to the lack of knowledge by persons using such apparatus. The persons in question were difficult to deal with and the apparatus and the directions for using it must be fool-proof, and even then there must be a margin for safety. Pressure was often regarded as a criterion in hospital practice, but it was temperature, not pressure, that mattered. The subject under discussion was receiving considerable attention at the present time by official authorities. Saturated steam applied under proper conditions was quite satisfactory, but required complete evacuation of air. The present hospital practice is satisfactory if properly used.

MR. SAVAGE, replying, said he had not advocated superheated steam; it might prove dangerous when it did occur. A high vacuum was desirable but difficult to obtain. He agreed that people in hospitals often did not know much about the matter. Unfortunately pharmacists in the hospitals were often not concerned with the sterilisation, although they were

really the only persons who knew anything about the subject. Pressure was certainly not the best guide, particularly as suitable thermometers were available. High pressure was an advantage, but was likely to have a severe effect on the cotton.

The last paper taken at the morning session, which was read by Mr. Rymill, was:—

Note on the Estimation of the Alkaloids of Ephedra

By F. E. RYMILL and C. A. MACDONALD

[ABSTRACT]

THE authors state that the method for the assay of the alkaloids of ephedra described in the British Pharmaceutical Codex, 1934, has not given altogether satisfactory results. They describe a method which has been in use for some time and given consistent results. The method is based on that described in the Codex, but the final extraction of the alkaloids is made with chloroform instead of with ether, and results in a sharp end-point in the final titration with somewhat higher and more consistent results.

The authors thank the directors of Evans Sons Lescher & Webb, Ltd., for permission to publish.

(From Evans' Biological Institute, Runcorn.)

DISCUSSION

MR. POWELL drew attention to the fact that a committee of the Society of Public Analysts had been set up to consider such problems as that discussed in the paper. He considered the advantage of chloroform over ether might be due to evaporation of the ether, with volatilisation of the alkaloid. It was doubtful, he thought, whether one washing with brine was sufficient, and the figures given in the table "Assay of Ephedrine Hydrochloride" might be wrong from that cause.

MR. CORFIELD recalled that he had been concerned in the introduction of the assay method in the B.P.C., 1934, and had also been required to determine the total alkaloid content of numerous commercial samples. There would be general agreement that the method gave results 15 to 20 per cent. higher than any previous method. After considerable experience with both chloroform and ether he had concluded, and still maintained, that equally accurate results could be obtained with ether as with chloroform, and it was more convenient. Differences which occurred were due to the degree of washing given. He was convinced that the ether carried with it the sodium carbonate, which must be removed, whereupon the ether could be evaporated without loss of alkaloid. It surprised him that the authors had used so little washing. In his own practice he had found the alkaloid determination process almost useless, because manufacturers were much more interested in the ephedrine content than in total alkaloids. With Spanish ephedra, the total figure given was fairly accurate, but the Chinese herb, which was at present almost the only source of supply, gave serious trouble owing to its low ephedrine content. An extraction process giving the pure mixed alkaloids was demanded. He inquired whether the authors had had experience with different indicators, mentioning brom-thymol blue; and whether the samples were Spanish (which was not available to-day) or the method applied equally to the Chinese.

MR. RYMILL agreed with Mr. Powell that the cause of low results with ether was to be sought in the handling. He was cognisant of the decomposition of ephedra alkaloids in the presence of chloroform, but the danger was minimised because the subsequent percolation process could be carried out in one hour. Tests had shown little change due to the chloroform. He described a technique which had been followed, which had led to the conclusion that the subsequent washing was largely unnecessary, and the single washing had been put in simply as a precaution. He had not tried brom-thymol blue or many other indicators, but they were under consideration. The herbs used were taken from bulk bought as Chinese.

MR. POWELL explained that he had not been referring to alkaloid coming through mechanically but to the ammonia dissolved in the chloroform.

MR. CORFIELD criticised the accuracy of the report, as given. It should have contained full details so that the reader was not left to think the mixed chloroform extracts had been washed with five mls of brine. The description should be altered to make it complete. He was not satisfied about the varieties used and would like other indications of source.

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MR. RYMILL declared that the method was not intended as a substitute for the B.P.C., 1934, method, but as a method suitable for speedy completion. He was not able to confirm the source of the drug.

Science Session

Thursday Afternoon

The concluding meeting of the science session was on Thursday afternoon. The first paper to be taken was:—

Notes on the Colorimetric Determination of Morphine

By D. C. GARRETT

[ABSTRACT]

THE author finds that Pharmacopœial colorimetric determination of morphine can be made more accurate and the colours more easily matched by "compensating" the blank solution, after making ammoniacal, with a quantity of the test solution equal to that used in the test. The necessity for compensation is clearly demonstrated by the fact that the extracted alkaloidal residue gives a brown colour with ammonia without the addition of nitrite. This modification was found necessary for all the colorimetric determinations of morphine investigated in complex galenicals. Aromatic powder of chalk and opium was found to require a further modification of the technique. The ipecacuanha in powder of ipecacuanha and opium was found not to interfere with the morphine determination; application of the general method to gall and opium ointment and tincture of chloroform and morphine was found possible.

The writer thanks Stafford Allen & Sons, Ltd., for standardised samples of powdered opium and ipecacuanha and Mr. E. T. Shelbourn (chemist-in-chief to the London County Council) for permission to publish. The work was done at the request of the British Pharmacopœia Commission.

(From the chemical laboratories of the London County Council.)

DISCUSSION

MR. BRINDLE said this should be a useful paper for analysts since the problem not infrequently arises as to whether an ingredient will or will not interfere with an assay process.

MR. CORFIELD said he was interested because he had had to determine morphine in a multitude of ways, methods and quantities. The method which was recorded in the Pharmacopœia was written by Mr. Self and himself. Both had a fair idea of the difficulties. While their thanks were due to Mr. Garrett, the points he raised were well known to workers at the time the B.P. was published. For tinct. camp. co. it was unnecessary to apply the compensating method.

The next paper taken, which was read by Mr. Meek, was:—

Notes on the Determination of Volatile Oil in Drugs

By H. O. MEEK and F. G. SALVIN

[ABSTRACT]

MENTION is made in this paper of the introduction of minimum standards for the percentage of volatile oil in drugs by the German Pharmacopœia VI and the United States Pharmacopœia XI, and alternative methods suggested in recent years are arranged in three classes:—Distillation with steam, with cohobation; distillation with steam, without cohobation; distillation by heating the drug in boiling water, with cohobation. Methods used by various European and Continental workers are described and discussed. From these it is evident that distillation from water into a graduated receiver, using cohobation, finds most favour. Various types of receivers used with a reflux condenser are outlined and illustrated. A complete apparatus which has been found to be convenient and satisfactory in use is shown in detail. The results of some experiments designed to minimise the loss of volatile oil involved in grinding the material are tabulated, and the value for this purpose of using a mixture of glycerin and water in the distilling flask is shown. The percentages of volatile yielded by some commercial powders and unground drugs are recorded.

The authors thank Dr. R. Melville for identifying the unique sample of South American "peppermint" as a species of *Minthostachys*, probably *M. verticillata*; Mr. T. E. Wallis for supplying reprints of Continental papers; and Mr. Harold Deane for samples.

(From the laboratories of Boots Pure Drug Co., Ltd.)

DISCUSSION

THE CHAIRMAN congratulated the author on the amount of work evidently done on the paper and commented on the length of the list of references.

MR. DEANE agreed that the method of cohobation was better than some of the Continental methods. His own preference was for the type of apparatus used by Cocking, in which the distillate was kept cold, although it had the disadvantages that it was expensive, fragile and difficult to clean. He had encountered difficulties with ginger. Many experiments still remained to be done before the results were ready for official adoption.

MR. RAMSAY inquired whether any experiments had been made in the use of the homogenisation process, to give maximum yield without grinding loss.

MR. GLASS had, in estimating cloves, found such an apparatus as that described impracticable in his own work because information had been required on the quality as well as on the amount of the yield. In the laboratory the yield was found invariably higher than in the works, while an accident to works apparatus had resulted in the material being soaked for ten days, resulting in the lowest yield recorded, with altered proportion of eugenol. It appeared possible that clove oil could be varied in quality according to the method followed. The speaker had discovered in a German publication notes on a patent for apparatus for distilling cloves to give maximum eugenol content, thus suggesting that others had made a similar discovery.

MR. MEEK, in replying, said most English workers preferred, like Mr. Deane, the "through" type of apparatus, but in this he was "not on the side of the angels." He had used both types side by side with practically identical results. The "through" type was perhaps simpler for bouquet examinations, but it was noteworthy that Wasicky's type of apparatus was about to be adopted in the Austrian pharmacopœia. His method with ginger was to hydrolyse the starch with hydrochloric acid. The applications of homogenisation to this purpose would have to be investigated. He could partly bear out Mr. Glass's observation by mentioning that the French were said to use a long-necked flask for the perfumery quality clove oil and a short-head flask for an oil meeting pharmacopœial requirements.

The penultimate paper was:—

Estimation of Acriflavine and Related Compounds in Pharmaceutical Preparations and Surgical Dressings

By G. F. HALL and A. D. POWELL

[ABSTRACT]

PRELIMINARY experiments regarding the application of the ferricyanide precipitation method to the estimation of acriflavine, euflavine, and proflavine in medicated gauze showed that the volume at precipitation can be increased enormously provided the sodium chloride concentration is kept below 1 per cent. Satisfactory assay requires almost complete removal of the alcohol used for extracting the medicament. The general method is given as follows:—

The solution derived from preliminary treatment, and containing from 0.02 to 0.2 gm. of the diaminoacridine derivative, is diluted to approximately 200 mls and the reaction adjusted until faintly acid to Congo red paper. One gm. of sodium acetate crystals is added, followed by sufficient excess of *M*/50 potassium ferricyanide with stirring during the addition (10 to 30 mls according to the amount required for precipitation). The mixture is allowed to stand for thirty minutes and then filtered through a Buchner funnel. The precipitate is washed with three successive quantities of 10 mls of water, and to the combined filtrate and washings is added 5 mls of hydrochloric acid (s. g. 1.16), 1 gm. of sodium chloride, 0.5 gm. of potassium iodide and 5 mls of 30 per cent. zinc sulphate solution, with mixing after each addition. After standing for three minutes, the liberated iodine is titrated with *N*/100 sodium thiosulphate. A blank determination is also made, using the same amount of *M*/50

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ferricyanide reagent. Each mil of *M*/100 ferricyanide precipitated is equivalent to 0.00888 gm. of acriflavine, 0.00779 gm. of euflavine, or 0.00921 gm. of proflavine.

The gauze (20 gm. or other convenient quality) is extracted for three hours in a Soxhlet apparatus with alcohol (95 per cent.) slightly acidified with hydrochloric acid (2 mls of dilute hydrochloric acid to 250 mls of alcohol). The extractive is removed to a beaker and the bulk of the alcohol evaporated off after adding 50 mls of water. Chloroform (25 mls) is added to the residual extract whilst still hot, and thoroughly mixed. After cooling, the mixture is transferred to a separator, and allowed to separate. Removal of fats is completed by two further extractions with 25 mls of chloroform, the combined chloroformic extracts being washed with two successive (10 mls) portions of water made slightly acid with one or two drops of dilute hydrochloric acid, breaking any emulsion with a little alcohol. Evaporate the united aqueous solutions to low volume to remove alcohol, dilute to 200 mls and proceed with the general method as above. Examination of commercial samples of euflavine gauze shows that these may vary in strength owing to selective adsorption and that the dressings are liable to deteriorate owing to the effect of light upon the dyestuff. Reducing impurities present vary in different samples and may introduce errors varying from 5 to 13 per cent. Estimation of the acriflavine content of fatty and oily preparations involves extraction with chloroform (ether being unsuitable). The preparation (25 to 50 gm.) is treated with about 50 mls of chloroform, and the solution transferred to a separator. This is extracted twice with 20 mls of water containing 2 mls of dilute hydrochloric acid, followed by two extractions with 10 mls of water containing 0.5 mil of acid. The combined acid-aqueous extracts are washed with 25 mls of chloroform, any medicament taken into the chloroform being re-extracted with 10 mls of water to which one or two drops of hydrochloric acid have been added. Any emulsion may be broken by adding alcohol. Removal of alcohol and application of general method is as above, results being calculated on a basis 95 per cent. of "total flavines." Application to glyco-gelatin pessaries of acriflavine requires precipitation of gelatin with alcohol and removal by centrifugation. The reducing effect of glycerin is minimised by ensuring that contact with ferricyanide takes place at low temperature and away from bright light, whilst the time for the main reaction is not allowed to exceed thirty minutes. Errors due to impurities in the glyco-gelatin base may amount to from 5 to 10 per cent.

DISCUSSION

THE CHAIRMAN said the authors emphasised the precautions which must be taken to ensure accuracy.

MR. SAVAGE said the largest consumers—the Navy, the Army and the Air Force—require that gauzes should be sterilised, and afterwards it was not possible to extract all the medicament. If sterilisation was insisted on he feared for what might happen at the hands of some analysts. Could one say that the gauze is satisfactory if it contained only 60 per cent. of the original amount of chemical?

MR. POWELL stated that he had known the field dressing mentioned. He could not say if the sample he had had been sterilised or not, but he had noticed that discoloration was only on the exterior. He imagined that the loss on sterilisation is not serious.

The final paper, which in the absence of the authors was taken as read, was on:—

Assay of Solutions of Iodine

By C. MORTON and F. R. C. BATESON

[ABSTRACT]

THE methods of assaying the pharmacopœial solutions of iodine may be criticised on the grounds that:—(1) In the case of weak solution of iodine and strong solution of iodine, separate determinations of iodide and free iodine have to be performed. In the determination of the iodide, the shaking in a stoppered bottle leads to inaccuracy, due to loss through the stopper, and the whole process is long. (2) The assay of simple solution of iodine involves the decantation of a solution from a zinc mercury amalgam which is not always perfectly separable. Again this process is somewhat tedious. The method described in this paper can be uniformly applied to each of the four pharmacopœial solutions, and has the advantage that both free and combined iodine are determined in the same sample of solution.

The method which the authors propose for the assay of these and similar solutions is based on that of Lang and Berg, in which both iodide and free iodine are titrated with potassium iodate in the presence of potassium cyanide and hydrochloric acid, the resultant iodine cyanide being decomposed by the addition of potassium iodide and the liberated iodine titrated with sodium thiosulphate. To 5 mls of a solution of potassium iodide, 5 mls of 10 per cent. potassium cyanide solution and 10 mls of hydrochloric acid were added, and the solution, diluted to 150 mls in a long-necked flask, was titrated with *M*/40 potassium iodate, using starch mucilage as indicator. Excess of potassium iodide was then added and the liberated iodine titrated with *N*/10 sodium thiosulphate.

Since decolorised solution of iodine, B.P.C., is stated to be a mixture of ammonium iodide and iodate it was decided to apply the method to the examination of that preparation, and a sample of decolorised solution was made by diluting 25 mls of simple tincture (9.04 per cent. of total iodine) to 100 mls with 4.7 mls of ammonia and alcohol. On testing the solution for the presence of iodate, no evidence of its presence could be found. Several samples of tincture were made, and others purchased from outside sources. In the fresh samples iodoform was readily found in crystallisable quantity, but in old samples had disappeared. One sample, which was thirteen months old, was almost colourless and no iodoform was present; when evaporated a distinct ester odour was noticed. In no case was it possible to demonstrate the presence of formate. A further attempt to demonstrate the formation of formate was made by digesting an excess of iodoform in alcoholic ammonia. Decomposition of the iodoform was evident, but again no definite proof of the presence of formate could be found. To find how the iodine content of the tincture altered during storage certain experiments were performed.

The authors wish to acknowledge a grant from the Dixon Fund of the University of London. (From the Chelsea School of Pharmacy.)

DISCUSSION

THE CHAIRMAN considered the paper was most valuable; the method had been tested by one of his own workers, who was most enthusiastic in its praise and described it as better than the B.P. method.

MR. RUTHERFORD HILL said that he was particularly interested in the tests carried out on decolorised tincture of iodine, because the authors called in question work undertaken by himself forty-eight years ago in which he had found no free iodine and no ammonium iodide to be present in the solution at all. He noted that the authors gave figures for "iodine not accounted for" in the second table. What was this? He thought details should be given. He still believed in his own work. The purpose of his paper had been to demonstrate that the decolorised tincture was obsolete, yet it was still included in the B.P.C. The medical profession should realise that the decolorised tincture was not what it purported to be.



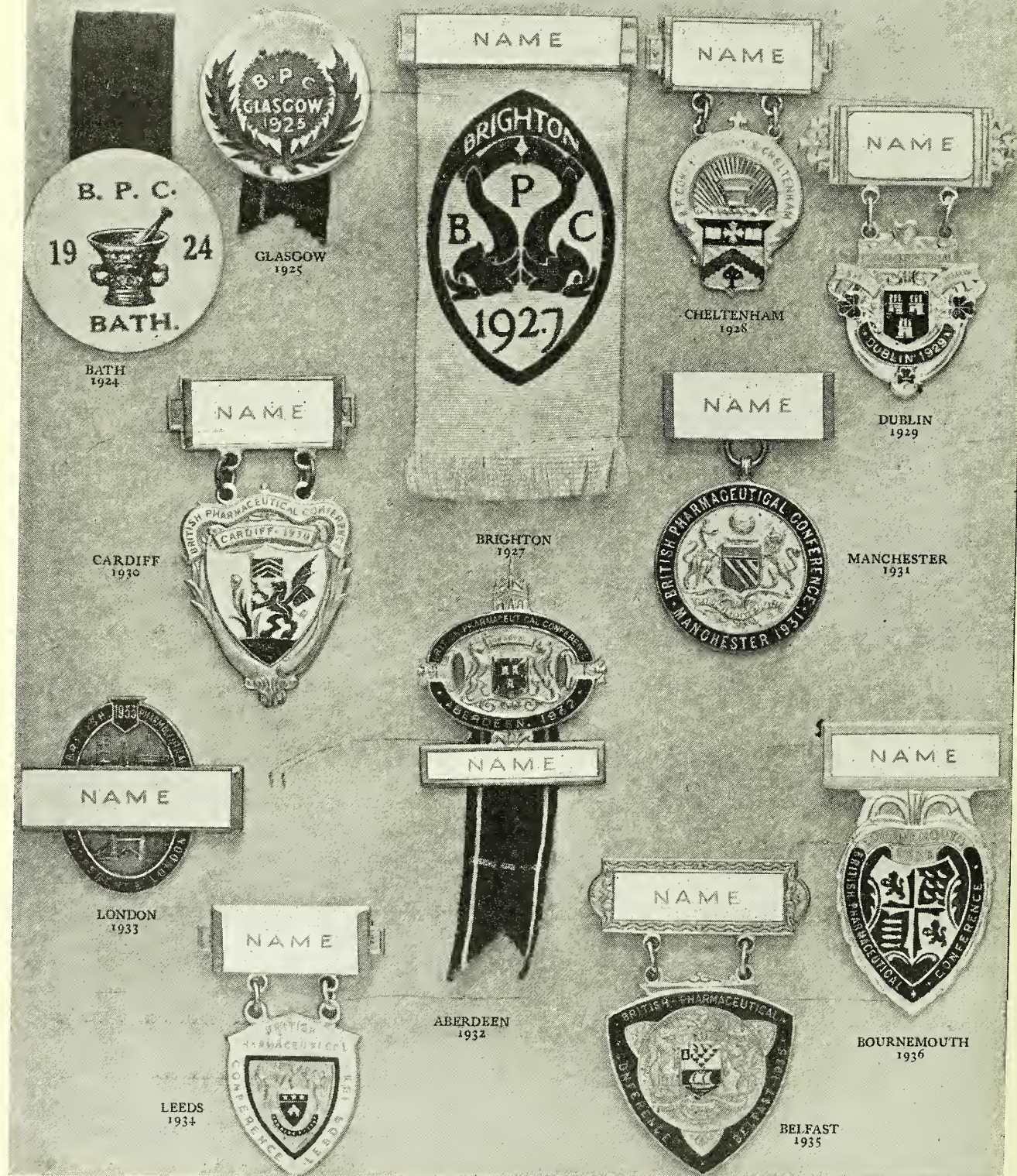
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ASSEMBLING FOR THE OFFICIAL PHOTOGRAPH

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Former B. P. CONFERENCE BADGES



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Closing Session

THE closing session of the Conference was held at the Adelphi Hotel on Thursday afternoon, July 29. Mr. T. Edward Lescher was in the chair.

THE CHAIRMAN called upon Mr. C. E. Corfield to read the

ANNUAL REPORT

The following are the principal passages in the seventy-fourth annual report of the Executive:—

In addition to the members, honorary members and student-associates of the Pharmaceutical Society of Great Britain and members of the Pharmaceutical Society of Northern Ireland, the membership of the Conference includes ninety-five persons at home and abroad who have been elected members of Conference by the Executive. Following the raising of the subscription from 10s. 6d. to £1 is. the number of elected members is only fourteen fewer than last year.

The Executive regret to report the death of Sir Henry Wellcome, who for many years was a corresponding member, and of Mr. E. H. Simmons, vice-president of the Pharmaceutical Society and a member of the Executive. Mr. Simmons had always taken a very great interest in both the scientific and the political sides of Conference activities and by his death the Conference has lost an enthusiastic supporter.

The ninth volume of the "Quarterly Journal of Pharmacy and Pharmacology," published in four parts during this year, constitutes the Year Book of Pharmacy for 1936.

The Conference Research List has been revised by a sub-committee of the Executive and is included for publication in this report. Every effort has been made to include subjects of special interest to pharmacists and subjects capable of solution under the conditions which apply in the pharmacy. In consequence, the Executive hope that a larger number of practising pharmacists may be encouraged to undertake pharmaceutical research. A number of items, which in the opinion of the subcommittee have received sufficient attention for the present, have been deleted and the subjects added include problems relating to antiseptic solutions of volatile oils, calamine, ephedrine, glycerophosphates, hydrastis, strophanthus, ointments and tablets.

The following subjects require examination or further investigation:—

Aconitine.—The composition of commercial aconitine and the methods of standardising aconitine and preparations of aconite.

Alcohol in Galenicals.—Suitable limits for the alcohol content of concentrated infusions and fluid extracts of the B.P.C.

Antiseptics.—The difference in action, if any, between sparingly soluble antiseptics (such as the more complex phenols) in solution and suspension.

Apiol.—Liquid apiol of commerce with a view to setting up a standard for this article so as to reduce the variation, which appears to be very considerable.

Barbitone derivatives.—Qualitative tests for the distinction of barbitone derivatives.

Belladonna and hyoscyamus.—A process for the preparation of dry extracts of belladonna and hyoscyamus without added leaf.

Belladonna plaster.—Assay processes for plasters made with a soap basis and for those made with a rubber basis.

Bismuth salts.—The causes of discoloration of bismuth salts on exposure to light.

Calamine.—A working process for the preparation of calamine of uniform and standard colour.

Calcium phosphate.—The composition of calcium phosphate and methods of producing a more uniform product for pharmaceutical purposes.

Cannabis.—The relative activities of extracts and tinctures of cannabis prepared from comparatively fresh cannabis of Indian, African, American and other origin and the effect of storage of the drug upon the activity of the preparations.

Cantharidin.—The determination of cantharidin in the beetles and in galenicals.

Castor Oil.—The value, or otherwise, of a cooling test for this oil.

Chlorophyll.—The composition of commercial chlorophyll.

Colloidal solutions.—Practical methods or formulas for the preparation of colloidal solutions of elementary substances which are believed to possess valuable therapeutic effects.

Colouring matters.—(a) The colours suitable for pharmaceutical products and their stability on keeping. (b) The processes for determining the tinctorial value of cochineal. (c) Comparison of the tinctorial values of litmus, cudbear and orchil.

Concentrated infusions.—The means and substances used in the preservation of concentrated infusions.

Creosote.—The composition of medicinal creosote.

Crude Drugs.—The significance of the official limits for "other organic matter" in unground drugs and methods by which the proportion of "other organic matter" may be determined in the same drugs in the form of powder.

Datura metel.—The nature and composition of the alkaloids of *Datura metel*.

Digitalis.—(a) A comparison of the results of digitalis assay by physiological and colorimetric methods with clinical effects. (b) The stability of aqueous solutions containing the glycosides of digitalis.

Disinfectants.—Formulas for disinfectants containing halogen derivatives of phenols.

Drugs in ultra-violet light.—The behaviour of drugs and galenicals when exposed to ultra-violet light and the value of such observations for the identification of drugs and their determination in preparations.

Emulsifying agents.—Comparison of the emulsifying powers of different emulsifying agents under different conditions of preparation.

Ephedra.—The determination of ephedrine and pseudo-ephedrine in ephedra herb and the liquid extract prepared from it.

Ephedrine.—Methods are required for the determination of ephedrine in tablets containing ephedrine with other alkaloids and synthetic basic ingredients.

Extracts.—(a) The effect of varying pH on fungoid growth in aqueous extracts. (b) The effects produced by various methods (e.g. evaporation *in vacuo*, in open air, etc.) of concentrating percolates and other solutions of extractive matter, more especially as they affect the composition of their constituents. (c) Figures for the relation between the yields of unstandardised extracts and the weights of the drugs from which they are made. (d) The extension of the principle of preparing standardised liquid preparations by dissolving a standardised solid extract in alcohol, as adopted for the cinchona preparations in the B.P. 1932, to other drugs; e.g., ipecacuanha, ergot and nux vomica.

Extraction of crude drugs.—(a) The extraction of crude drugs for the purpose of collecting data as to the relative proportions of active principle and inert material in progressive fractions with a view to determining the economic limits for extractions. (b) Data of the amount of extractive yielded by drugs to various menstrua, e.g., alcohol, water, ether, etc.

Extract of liquorice.—The determination of the characters of genuine liquid extract of liquorice.

Gland products.—Methods for the identification of animal substances and tissues in desiccated powder form and the possibility of applying pharmacognostic technique for the detection of adulteration, etc.

Glycerophosphates.—An examination of the effect of varying proportions of the α and β modifications on the stability of the compound syrup of glycerophosphates.

Gums and mucilages.—Methods for the identification of these in mixtures are required.

Hydrastis.—Examination of the relative merits of different methods of standardising the B.P.C. extract and liquid extract of hydrastis.

Injections.—Improved formulas for active injections of ergot and digitalis.

Iodised oil.—Suitable processes for the preparation of products containing a high proportion of iodine in oil.

Lobelia.—The determination of the total alkaloids of lobelia and its galenical preparations.

Local anaesthetics.—Qualitative tests for the distinction of local anaesthetics.

Magnesium oxides and carbonates.—The composition of and impurities in commercial magnesium oxides and carbonates.

Medicinal dyes.—Suitable qualitative or quantitative tests for controlling the purity of several organic dye-stuffs used as colouring agents or for their therapeutic properties, viz., bordeaux-B, scarlet red, brilliant green, methyl violet, etc.

Mercury with chalk.—The methods of preparation and of storage of grey powder which will prevent the formation of mercuric compounds.

Mercury determinations.—Methods for the determination of mercury in strong ointment of mercuric nitrate and other mercury ointments, and in certain mercury salts.

Mistura.—The effect of storage upon the stability of dispensed mixtures containing preparations of vegetable drugs, etc., with a view to formulating recommendations on the use of concentrated mixtures and mixtures not freshly or recently prepared.

Mucilaginous seeds.—The histological characters of certain medicinal mucilaginous seeds of the orders, cruciferae, labiate and plantaginaceae.

Ointments.—The possibilities for the use of hydrogenated fats and of cetyl alcohol for the preparation of ointment bases.

Peptone.—The composition of "peptones" suitable for hypodermic injection and other purposes.

Pill coatings.—Formulas for coatings for pills and tablets which will resist wholly the action of gastric secretions and dissolve in the contents of the small intestine, and at the same time have a sufficient degree of expansibility to guard against bursting under normal changes of temperature.

Potassium guaiacolsulphonate.—The quantitative determination of potassium guaiacolsulphonate.

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Preservatives.—The use of benzoic acid, benzoates and hydroxy-benzoates as suitable preservatives for pharmaceutical preparations.

Purgative drugs.—An examination of the methods of detection of drugs containing oxymethylantraquinone derivatives in mixtures.

Quinine.—A method for the preparation of ammoniated quinine tablets.

Readily carbonisable substances.—The sulphuric acid test for "readily carbonisable substances" in organic chemicals with a view to confirming its value as a practical test for purity.

Rhubarb.—Tests for distinguishing East Indian and rhapontic rhubarb and a method for the determination of rhapontic rhubarb in powdered rhubarb.

Senega preparations.—Means of preventing the formation of deposits in preparations of senega and tests to show that they are of full strength and free from foreign saponin.

Senna pods and leaves.—An examination of the active constituents. Tests are required to distinguish between preparations made from the leaves and those made from the pods.

Silver compounds.—The composition of and an investigation of the relative therapeutic actions of colloidal silver compounds and silver salts.

Sodium morrhuate.—The preparation and standardisation of sodium morrhuate and solutions of sodium morrhuate for injection.

Solubilities.—Figures for the solubilities of a large number of pharmaceutical inorganic and organic chemicals in different solvents.

Solvents.—An investigation of the suitability of ethylene glycol, isopropyl alcohol and similar solvents for use in medicinal products.

Specific gravities.—Figures for the specific gravity at 25°/25° C. of numerous pharmaceutical substances and preparations.

Sterilisation.—(a) An examination of the drugs which are given by injection in order to show (1) how far they are injured by heat sterilisation in aqueous solution, and (2) the stability or otherwise of aqueous solutions on storage. (b) The best type of material for apparatus used in the preparation of sterilised water for intravenous injection.

Storage.—(a) The effect of light on the physiological activity of quinine salts, apomorphine and other substances which become coloured on exposure or are readily oxidisable, with special reference to the conditions of storage. (b) The absorption spectra, visible and invisible, of the various types of glass used as containers.

Sitrophanthus.—Comparison of the results obtained by colorimetric tests and physiological assay.

Syrup of iron phosphate with quinine and strychnine.—An examination of Easton's Syrup with a view to the prevention of colour.

Tablets.—Practical methods are required for the standardisation of medicaments when exhibited in the form of tablets.

Tin oxide.—The composition of the compounds of tin suitable for internal administration.

Tragacanth.—The variability of powdered tragacanth and the elaboration of a standard method by which the purity of this drug may be controlled.

Valerian.—(a) The active principle of valerian root and an investigation of the difference in constituents of the British root and that from the Continent. (b) The preparation of a so-called odourless liquid extract of valerian.

Volatile oils.—Formulas are required for the preparation of non-poisonous antiseptic solutions, having high Rideal-Walker coefficients, containing aromatic oils.

Twenty-five papers have been read and discussed at the science meetings, and the Executive take this opportunity of expressing to the authors their thanks for the papers and their appreciation of the valuable conclusions which these investigations have produced.

The Harrison memorial lectureship and medal for 1937, in memory of Colonel Edward Frank Harrison, has been awarded to Mr. F. W. Gamble, a vice-chairman of the Conference, who will deliver the lecture and receive the medal at the Society's Evening Meeting to be held on March 8, 1938.

Names of members to form the Executive have, as in previous years, been recommended by a subcommittee appointed by the Executive, and a proposal will be submitted at this meeting that the following officers be appointed for 1937-38:—

Chairman: J. Rutherford Hill, O.B.E., Ph.C.; **Vice-Presidents:** W. A. H. Naylor, J. F. Tocher, E. H. Farr, E. Saville Peck, David Hooper, W. Kirkby and C. A. Hill; **Vice-Chairmen:** F. W. Gamble, D. Lloyd Howard, R. R. Bennett, J. H. Franklin, H. Skinner, C. H. Hampshire, F. W. Crossley-Holland, H. Deane and T. E. Lescher, O.B.E.; **Honorary Treasurer:** A. R. Melhuish; **Honorary General Secretaries:** C. E. Corfield and G. R. Boyes; **Other Members of Executive:** H. Brindle, B. A. Bull, N. Evers, A. J. Jones, J. Keall, E. W. Mann, with L. Moreton Parry, P. F. Rowsell and J. C. Young, nominated by the Council of The Pharmaceutical Society.

The above persons will be the officers of the Conference, together with the following *ex-officio*:—**President:** The president of The Pharmaceutical Society of Great Britain. **Other members of the Executive:** The president of The Pharmaceutical Society of Ireland, The president of The Pharmaceutical Society of Northern Ireland,

the chairman of the North British Executive of The Pharmaceutical Society of Great Britain, the chairman of the Local Committee and the honorary local secretary.

The Executive wish to express to the Local Committee their appreciation of the excellent arrangements which have been made for the Liverpool Conference. They feel sure that it is the desire of all the members assembled in Liverpool that their thanks be expressed and recorded, and for this purpose they invite you to approve the following resolution which will be moved at this meeting:—"That the cordial thanks and sincere appreciation of the Conference be expressed to the Liverpool Local Committee for the arrangements made for the meetings and for the entertainment of the visitors." An invitation to meet in Edinburgh in 1938 will be received at this meeting from the Edinburgh and South-Eastern Scottish Branch of the Society. Last year the Executive reported that invitations had also been received from the Bath and District Branch and from the Birmingham and District Branch. The Executive have accepted these invitations provisionally, and they are happy to think that the popularity of the Conference will be maintained by the prospect of meeting in such suitable centres.

THE PRESIDENT formally moved the adoption of the report.

MR. GUTHRIE seconded the adoption of the report, which, on being put to the meeting, was carried unanimously.

TREASURER'S REPORT

THE TREASURER (Mr. A. R. Melhuish) read his annual report, which was in the following terms:—

The accounts for 1936 show that the income from subscriptions paid by elected members was £56 14s. and in addition a composition fee of £25 was received under Rule 2 from the Pharmaceutical Society of Northern Ireland. These amounts have been credited to the "Quarterly Journal of Pharmacy and Pharmacology" account. On the expenditure side of the account, the general expenses of the Conference were £125 12s. 9d. These figures were included in the Pharmaceutical Society's financial statement presented at the Society's annual meeting in May of this year. The total amount expended is £9 13s. 10d. more than last year. Apart from the figures to which reference has just been made, the Conference account shows a balance in hand of £171 5s. 9d. The usual presentation of books in connexion with the Bell and Hills Fund was made to the Bournemouth and District Branch of the Society in 1936. Finally, I am very pleased to be able to report that the balance at the end of 1936 exceeded that of the previous year by £20 16s. 9d.

THE PRESIDENT moved the adoption of the report.

THE VICE-PRESIDENT seconded, and the report was carried unanimously.

PLACE OF MEETING FOR 1938

DR. BLACKIE, extending the invitation to the Conference to visit Edinburgh, said it was a great pleasure to do this. In Edinburgh they had a street which had few equals—Princes Street—and the city had a wealth of historic associations. He could not therefore in the time at his disposal tell the Conference of all their historic places, but he would like to remind them of just a few such as Edinburgh Castle with its grandeur. Then they had the wonderful view up Princes Street, with the Scott Memorial in the centre and the view of Edinburgh Castle beyond. Although in Liverpool they had the recently constructed Mersey Tunnel, they in Edinburgh were still very proud of the Forth Bridge, which was constructed more than forty years ago and was still considered a marvel in engineering. They proposed to hold the meeting in September, as this was one of the finest months of the year in Scotland, as many of those who were at the Aberdeen Conference would recollect. During the time they were there the Edinburgh and South-Eastern Scotland Branch hoped to show them something of the beauties of the Border Country, famous through its association with the works and name of Sir Walter Scott. There was another reason why he urged them to come to Edinburgh, and that was because it was a very good centre for a holiday and one could easily reach both the Highlands and the Lowlands. He could promise them a very good week and asked them to accept their invitation and make the Edinburgh Conference a tremendous success.

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Mr. J. B. MITCHELL, in seconding the invitation, said Dr. Blackie had, he thought, covered the main attractions of their city, and it would therefore be invidious for him to try to give them a lot more, as he could keep them all night talking about the attractions. Many of them would remember the last Edinburgh Conference in 1912. He thought there were three Edinburgh gentlemen present—Messrs. Rutherford Hill, B. Tate and himself—who were present that day. It brought back fond memories. At that time Sir Edward Evans was chairman, and he could look at many kind faces who were there at that Conference. To those who were coming to the Conference for the first time he could guarantee that they would get a real Scots welcome.

Mr. FRANKLIN moved the acceptance. He thought the two gentlemen who had previously spoken had been very modest about the attractions of Edinburgh because he thought it was very many times more beautiful than they had said. He assured everyone that they would have an unforgettable time in Scotland, and possibly they would put a monster in Loch Ness for them (laughter).

Mr. ARTHUR MORTIMER seconded and said there was so much about Edinburgh that they did not know, in fact the only thing most of them knew about Scotland was a lot of funny stories (laughter). Under the genial chairmanship of Dr. Blackie they should have such a conference as they would have nowhere else.

The resolution to accept the invitation was carried unanimously.

ELECTION OF OFFICERS

Mr. NOBLE proposed the election of officers nominated in the annual report of the Executive Committee. He said he felt quite sure by their acclamation a few moments ago that they approved of the names submitted. Mr. Rutherford Hill, who was so well known to them all, had been secretary of the Society in Scotland for fifty years and was awarded the O.B.E. shortly after his retirement last year. It was fifty-three years since he had submitted his first science paper to the Conference. The speaker paid a tribute to the work of the treasurer and secretaries. Referring to the election of Mr. Keall and Mr. A. J. Jones in place of Messrs. H. Berry and H. Davies, the speaker said both these gentlemen had done yeoman service for pharmacy and he was sure they would do good work for the Conference.

Mr. GOUGH, seconding, said he had not seen all the years that Mr. Rutherford Hill had put in at Conferences, and not only at the Conferences but in all branches of the profession.

The resolution was carried unanimously.

Mr. RUTHERFORD HILL, in returning thanks for the confidence placed in himself and the other new officers, said the only words he could find to express his feelings at the moment were these, "I am overwhelmed." Never in his most optimistic moments did he dream of an honour like this coming his way but they might take his assurance that he esteemed the honour very greatly indeed. No honour could have pleased him more than that which they had conferred on him that day. He took it as a recognition of Scottish pharmacy and Scottish pharmacists. Some remarks had been made about being at the parting of the ways in pharmacy, and if ever there was a moment in the history of pharmacy when they should stand together in loyalty and friendship it was now, and it was here in the Conference that he felt they could forward the interests common to their calling. Scotland had been honoured with the Conference on three previous occasions, and he hoped the Edinburgh Conference would be a worthy successor to those.

THANKS TO LOCAL COMMITTEE

THE PRESIDENT, in proposing a vote of thanks to the Local Committee, said he did it with a very great deal of pleasure. Those of them who were at the Liverpool Conference in 1920 would remember that Conference as marking the renewal of the Conference after the disastrous war years when the activities of the Conference were very much curtailed. Those of them who came to Liverpool had a wonderful time and they looked forward with a great deal of pleasure to coming back to Liverpool again. He wished to pay tribute to that team of workers who had worked so hard to make it a success.

Mr. A. R. MELHUISH, in seconding, said he would like to pay his tribute to the way in which the ladies' committee had arranged the excursions, and he thought a special meed of praise was due to them.

The vote was carried unanimously.

Mr. HUMPHREYS JONES, in response, said they appreciated very highly the vote of thanks which had been passed. He and his wife attended their first Conference in Edinburgh in 1912 and since then they had only missed one Conference, but they had a long way to go yet before they achieved Mr. Rutherford Hill's record. He would like to pay a tribute in particular to the work put in by Mr. W. E. Humphreys and Mr. F. A. Lawman on the arrangements for the Conference and to thank all those who had taken part in the work of the committees.

PRESENTATION OF BOOKS

THE CHAIRMAN made the customary presentation of books from the Bell and Hills Fund to the Liverpool Branch of the Society.

Mr. JOHN RAE, in accepting the gift, said the books would be placed in the library attached to the local branch of the Society and of the Association.

THANKS TO THE CHAIRMAN

Mr. R. R. BENNETT moved a vote of thanks to the Chairman and said that in Mr. Lescher they had a man who all his life had had the interests of pharmacy at heart. They recognised in him a man who had got expert knowledge in the conditions of trade and industry of the whole country, and of Liverpool in particular. They were all very grateful indeed to him for the great tact and wisdom with which he had carried out his duties as chairman. They would always remember Mr. Lescher as a man who had distinguished himself as a great man in his profession. He had distinguished himself as a great organiser and as a great industrialist, and they also thought he had distinguished himself by his attractive personality. He should also like to say that they were very grateful to have with them Mrs. Lescher and one of her very charming daughters. He proposed that the very cordial thanks of that meeting be accorded to their chairman.

Dr. CROSSLEY HOLLAND, in seconding, said they all very much appreciated the exceedingly able way in which Mr. Lescher had conducted the business of the Conference. They in London felt that nobody had done more for pharmacy and the individual in pharmacy than Mr. Lescher, and he did suggest that that was the highest thing they could say of any man in pharmacy.

THE PRESIDENT put the resolution, which was carried with acclamation.

THE CHAIRMAN, in acknowledgment, said they would appreciate what an embarrassing moment this was for him. He had been gratified by the warmth of their welcome and he would like to thank the Local Committee and members of the Executive for their help during his term of office. But that was indeed nothing to the warmth and wealth of kindness he had experienced from them during the last few days. If there were any words to express his feelings, it might be "The Good Companions." It had indeed been a gathering of "Good Companions" of pharmacy. He then declared the proceedings of the Conference closed.

AN UNCONVENTIONAL SNAPSHOT OF THE NEWLY-ELECTED CHAIRMAN OF THE BRITISH PHARMACEUTICAL CONFERENCE, TAKEN AT LLANDUDNO ON THE OCCASION OF THE VISIT TO THIS SEASIDE RESORT ON JULY 30 (see p. 166).



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PROMENADE AND LITTLE ORME, LLANDUDNO

Conference Visit to Llandudno

By F. A. Lawman

Members of the British Pharmaceutical Conference went to Llandudno on July 31. The route traversed on the outward and homeward journey is described below.

THE journey started by the same route as to Port Sunlight—through the Mersey Tunnel, or Queensway, to give it its official designation, thence along the New Chester Road, through Rock Ferry, New Ferry, the edge of Port Sunlight, Bromborough and Eastham, into the open country. The peninsula between the estuaries of the Mersey and Dee is called Wirral, and it is difficult to believe that foxhounds and harriers still meet and enjoy good sport within a few hundred yards of the route. On a clear day the Welsh hills can be seen soon after leaving the urban area—and, indeed, one reaches Wales surprisingly quickly. When the course of the Dee was altered and much marshy land recovered the boundary remained where it was, and Wales now starts a mile or two on the English side of the Dee. The great aerodrome nearby is the R.A.F. Sealand Station. The Dee is tidal as far as Chester, and at times beyond, and some of the finest Dee salmon are caught in the reach crossed by the Queen-ferry Bridge.

Two Famous Men

The route leads up to Hawarden (pronounced Harden), most famous as the home of William Ewart Gladstone, and passing the St. Deniol's Memorial Library there is to be seen a fine statue to his memory. Only a glimpse of the church is obtained. The church was restored by Gilbert Scott, the grandfather of the architect of Liverpool Cathedral, and in it there are windows by Burne-Jones and fine recumbent figures of Mr. and Mrs. Gladstone by Sir William Richmond. The great statesman is, of course, buried in Westminster Abbey. The castle is not visible from the road, but the route passes one of the gateways on the way down to and up through a delightful glen. It leads on to the edge of an industrial part of Flintshire, with coalmines, ironworks and brick and tile kilns around what is known to some as "ugly Buckley." The road followed on the excursion turns at Penymynydd (anglicised as Pennymunnith). The ruins on the hilltop to the south are those of Caergwre Castle (pronounced Kygerly), with the Llay Main Collieries to the left. The main ridge ahead is the Clwydian Range (Kluidian), with Moel Famau and its ruined tower at the top as the most conspicuous feature of the outline. Moel Famau signifies "Mother Hill," and is the highest of this formation. The town in the foreground, with a fine church tower, is Mold. The statue in front of the Council offices is to Daniel Owen, the Welsh novelist.

Climbing past partly derelict quarries and old lead workings, Gwern-y-mynydd is reached (Gwernymunnith—translated by a local M.P. as "the Alders on the Mountain"). From a quarry at the top of the hill silica is mined. It frequently happens that some of the lead ore with a high percentage of metal is

found here by the quarrymen, who are known to some as the "aldermen." The route then drops down through Colomendy, a quiet village in a wonderful setting, to Loggerheads, the centre of a limestone country, reminiscent of Derbyshire, in striking contrast to the soft red sandstone of Cheshire and the harder local red sandstone as used for Liverpool Cathedral. The river—the Alyn, which flows into the Dee—has a habit, as is frequently the case in limestone districts, of disappearing underground and reappearing again some distance away.

Moel Famau now looms ahead, and looks more like the Jungfrau or the mountains round Innsbruck than ever. Through Llanferres, past the church and Druid Inn. There is a signpost to Llanarmon, which serves as a reminder that it was at nearby Llanarmon-yn-Yale that Elihu Yale, the founder of Yale University, was born. At the top of the Bwlch pass (Book) there is a surprise view, with the Vale of Clwyd stretched out below. The town in the middle distance with the fine spire of its collegiate church is Ruthin (Rithin), and on a clear day the seat-like top (more like a saddle back) of Cader Idris can be seen to the extreme south-west, with the peak of Arenig almost due west. The moorlands (Mynydd Hiraethog) beyond Ruthin are traversed by two fine roads which link up with the London-Holyhead road and the Conway Valley and some of the finest mountain and valley scenery in Britain. The road passes down round hairpin bends to Llanbedr, past Ruthin School (founded in 1574), to Ruthin itself. This old town, one of the administrative centres of Denbighshire, is more like Cornwall than Wales. There is a fine old black and white half-timbered hostel in Ruthin called the Wynnstay Alms Hotel—a Sir William Watkin Wynne still lives at Wynnstay, Ruabon. Wynnstay is said to have been originally Wat Stay, a reminder of the fact that two great earthworks, of which trace can still be seen, Wats Dyke and Offas Dyke, run from the Dee to the Severn. The castle, at one time the seat of the Cornwallis Wests, is now a nursing home. The old Court House (1401) is in the Square at the top of the hill, now restored and in use as a bank, and the unique dormer windows of the annexe to the otherwise Georgian Castle Hotel are interesting.

On the way to Rhyl

The way lies along the Vale of Clwyd through delightfully fertile country, with the wonderful and ever-changing outline of the Clwydian Hills now on the right. The native cattle of Wales are on the small side and black, and there is rarely a flock of sheep in Wales without a few black ones amongst them. The extensive castle ruins which dominate a nearby

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hill are those of Denbigh—the name means the Hill Fort. On approaching Denbigh, a square church tower is to be seen on the right. This is Whitchurch—the white or old parish church which has been recently restored. The new parish church can be seen below the Castle, adjoining which are Howell's Schools, controlled and maintained by the Drapers' Company of London. It is interesting to record that H. M. Stanley was born in Denbigh. The route proceeds via Trefnant, over a fine old bridge spanning the Elwy, with St. Asaph and its Cathedral shortly on the right, past Violet Charlesworth's old home to Rhuddlan with its magnificent Edwardian Castle. In the High Street of Rhuddlan there is an old stone house used in 1283 for a meeting of Parliament. Sunny Rhyl fully lived up to its own designation and reputation, and as time permitted, the coaches halted for a few minutes before proceeding along the entire length of the Promenade, over the Foryd Bridge (the Foryd is really a confluence of the Clwyd and Elwy which meet just below St. Asaph), through Kinnel Bay and numerous Holiday Camps to Pensarn and Abergele, within a short distance of the seashore all the way. For nearly three miles the road runs beside the walls of Gwrych Castle (Gourieek or Greek).

Attractions at Llandudno

After Llandulas, the road passes giant quarries, around a new marine drive to Penmaen Head, and affords a magnificent view of Colwyn Bay, with Rhos Pier at the other end, and the much-quarried Little Orme projecting into the sea beyond. The road here, formerly narrow, winding and dangerous, now represents a fine piece of modern highway engineering, and leads through Old Colwyn to Colwyn Bay, one of the most charming as well as one of the largest residential towns in North Wales. The buildings just beyond the Church and Municipal Offices are those of the famous Rydal School. After Llandrillo-yn-Rhos, with its well placed Church, we pass round the land side of the Little Orme, bringing into view a fine vista of the sweep of Llandudno Bay, with the Great Orme and its hotel on the summit. To the South of the Great Orme lies the Conway shore and, beyond Penmaenmawr, the mountains of Caernarvonshire. At Llandudno there is a wide choice—the Promenade, the Pier, the Happy Valley (near the Pier), the Haulfre Gardens, the Winter Gardens, and Pavilion on the Pier; there are a fine dance hall and numerous cinemas, in case of rain. There are several golf courses within a mile or so. There is a fine open-air swimming bath at Deganwy, a tramway to the top of the Great Orme, but the most recommended trip is the run round the famous Marine Drive. This Drive is one of the finest of its kind. Good visibility is essential for the full effect, which is really at its best towards sunset. To the extreme North-east is seen the point of Anglesey (Mona's Druidic Isle—Mona—Mother of Wales), then the whole length of the Island to Beaumaris and the Menai Straits, and Puffin Island. Sometimes the peak of Holyhead Mountain can be seen across the Island, with the twin peaks of the Rivals to the extreme south-west in the far off Llyn Peninsula. Round the corner there is a view up the River Conway to the tubular railway and suspension road bridges designed by Telford and the massive towers of Wales' most castellated Castle at Conway. Along the shore there is an incomparable background—Conway Mountain, the much-quarried

Penmaenmawr and Snowdonia. Snowdon itself cannot be seen from the Great Orme because the mountains to the East of Llanberis Pass and Nant Ffrancon are nearly as high as Snowdon itself. The road round this fine headland passes Gogarth Abbey, where Dean Liddell stayed with his daughter Alice and where they were visited by Lewis Carroll. It was along this shore and in his home in Cheshire that "Alice in Wonderland" was created.

The Homeward Journey

A different route is followed on the return journey via Deganwy, with closer views of Conway Castle and the old Town walls which start from and return to the water's edge. The massive fortress of Conway Castle is still in excellent preservation. Owing to continued heavy traffic over Telford's famous suspension bridge across the Conway River, the Ministry of Transport has condemned it and recommended a new bridge, which it is estimated will cost £75,000. Across some marsh-like land the route leads to Colwyn Bay and Rhos-on-Sea, along the promenade up on to the main road to Abergele, via Kinnel St. George's—the new Rheuma Spa, past an old Canadian War Camp, Lowther College for Girls, and the so-called Marble Church of Bodelwyddan. This small but fine Willoughby de Broke Memorial is most graceful; the marble is within, but the beautiful granite used for the exterior often glistens like marble in the sun. The crosses in the Churchyard are memorials to the Canadian soldiers who died while in the adjoining Camp. The Elwy is crossed at St. Asaph, thence past the Cathedral, over the Clwyd, on to a fine new road towards the Hills again. The Mound at the top of the hill at the North end of the Clwydian Range (visible from Western Wirral) is often referred to as Boadicea's Grave; it is one of the largest artificial mounds in Britain, and is now believed to date from a much earlier period. On the right, just before the ascent of Rhualt Hill, can be seen on the hillside a large building, St. Bueno's College. The little spire on the cliff beyond, reminiscent of William Tell's Chapel, is a little gem and it is worth recording here that just below at Tremeirchion is Brynbella, the villa built by Piazzi for Mrs. Thrale, whose most famous—and sometimes most tiresome—visitor was Dr. Johnson, who was inclined to despise the Clwyd as "a ditch you could stride across." Brynbella is now occupied by Mr. J. H. E. Evans. Across open moorland, with Moel Famau on the right, when the next hill has been crested, the estuary of the Dee is seen below. From this point, a good idea of the Wirral Peninsula is obtained, with Hilbre Island just off the north-west corner. On clear days, Lancashire can be seen across the Wirral, particularly Formby Point, and the Lancashire Coast which leads towards Southport and the North. At Holywell, there is a Holy Well—a local Lourdes—"St. Winifred's Well," and said to possess curative properties. It is interesting to record that the little Shrine around this Well is still Catholic, whereas the perpendicular Church above became Anglican at the Reformation. The road continues along the slopes of Halkyn Mountain. This is the road the Romans built from Chester (Deva), and on as far as Segontium, near Caernarvon, whence their roads went South in search of that Welsh gold which is still used for royal wedding rings.



A VIEW OF HAPPY VALLEY AND THE LITTLE ORME, LLANDUDNO

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude rugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, August 5

BANK HOLIDAY week has been characterised by quietness in all sections of the market, and there are few changes to record. In the PHARMACEUTICAL CHEMICALS market the one important change is a further sharp advance in EPHEDRINE, both hydrochloride and alkaloid. The reason for this is easily found in the continued and even intensified political unrest at Tientsin, North China. Whether undue advantage is being taken of this it is impossible at this stage to say, but if this should prove to be the case then colour will be added to reports of renewed interest in quarters that have hitherto contributed little to the world's supply of ephedra. IODIDES remain fully firm and BROMIDES are unchanged except that recent changes in packing charges have been applied to the smaller classifications.

Crude Drugs

Such changes as have occurred in the prices of crude drugs have been mainly in the direction of added firmness, but they have not been unusual. Good business has been done with JAPAN in AGAR, although the spot market has been quiet. Prices are firmer. There has been a very fair demand for CARDAMOMS, without change of value. ERGOR has again sharply advanced and last week's reports of firmer demands from Portugal have been more than realised. A firming tendency in GUM ACACIA follows reports from the source of smaller arrivals than in other years. Unusual sources from which SAFFRON has been entering the London market appear to be diminishing, and more stable conditions are to be looked for. SENEGA is a shade easier. TURMERIC is firmly held for improving prices. WAXES are steady, with slight advances in Dar-es-Salaam (shipment) and fatty grey Carnauba (shipment).

Essential Oils

Here again changes are slight and business has been quiet, particularly in view of the short week. ANISE (STAR) continues very firm, with very little B.P. quality available on spot and only a lower grade offered for shipment. CINNAMON LEAF, in common with CLOVE (Zanzibar stem oil) has been in good large-scale demand, the former being now firmer in price. Ceylon CITRONELLA and Australian EUCALYPTUS remain firm. MANDARIN is scarce. The demand for PALMAROSA is slack and the price is easy. Sicilian LEMON is another dull market. Prospects of firmer prices are dependent to a large extent on the demand for fresh lemons. SPEARMINT is firmer.

Exchange Rates on London

The following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	July 29	August 5
Amsterdam ...	Fls. to £	12.107	9.02	9.03
Berlin ...	Mks. to £	20.43	12.36	12.38
Brussels ...	Belgas to £	nominal	29.56	29.60
Copenhagen ...	Kr. to £	18.159	22.40	22.40
Lisbon ...	Esc. to £	110	110½	110½
Madrid ...	Ptas. to £	25.22½	nominal	nominal
Milan ...	Lire to £	92.46	94½	94½
Montreal ...	Dol. to £	4.86½	4.97½	4.98½
New York ...	Dol. to £	nominal	4.97½	4.98½
Oslo ...	Kr. to £	18.159	19.90	19.90
Paris ...	Fr. to £	124.21	132½	132½
Prague ...	Kr. to £	164.25	142½	142½
Stockholm ...	Kr. to £	18.150	19.40	19.40
Warsaw ...	Zloty to £	43.38	26½	26½
Zurich ...	Fr. to £	25.2115	21.68	21.69

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

BUSINESS has been steady and, considering the holiday, up to expectations. Iodides remain firm and attention is directed to a revised scale of prices for bromides in small parcels. Ephedrine continues to advance.

ACETANILIDE.—Market remains dull; B.P. crystals and powder, 1s. 7d. up to 1s. 10½d. per lb., as to quantity.

AMMONIUM ICHTHIOSULPHONATE.—Quoted unchanged: one cwt., 1s. 6½d., in 14-lb. tins; 1s. 8d., in 1-lb. tins; 1s. 10½d., in 8-oz. tins, and 2s. 1d. per lb., in 4-oz. tins.

ASPIRIN.—Makers' and dealers' prices are unchanged, average business reported; home trade, ten cwt., 2s. 7d.; five cwt., 2s. 8d.; 1 cwt., 2s. 8½d.; 28 lb., 2s. 9d.; 14 lb., 2s. 10d.; 7 lb., 3s.; 4 lb., 3s. 2d.; 1 lb., 3s. 4d. per lb. Bulk packing free, net, carriage paid. Contracts, over twelve months, minimum one ton; over six months, less than one ton.

BENZOIC ACID (B.P.).—Small business at steady prices continues: quantities, ex works, 1s. 9½d.; spot parcels from 1s. 10d. to 2s. 3d. per lb., ex store, as to quantity.

BISMUTH SALTS.—There has been no weakening in the makers' scales of prices: carbonate, not less than one cwt., 6s. 6d.; 6s. 9d.; 8 lb., 7s. 3d.; 4 lb., 8s.; less than 4 lb., 8s. 6d. per lb.

BORAX (B.P.).—Makers' prices steady: granulated, £24; crystals, £25; powdered, £25 10s.; extra fine powder, £26 per ton, in 1-cwt. bags, carriage paid buyers' works for minimum 1-ton lots. Extra for smaller quantities. Commercial quality, £8 per ton less for all descriptions.

BORIC ACID (B.P.).—Makers' prices continue steady: granulated £36 10s.; crystals, £37 10s.; powder, £38 10s.; extra fine powder, £40 10s. per ton, in 1-cwt. bags, carriage paid to buyers' works on 1-ton minimum. Commercial quality, £8 per ton cheaper for all descriptions.

BROMIDES.—Prices of small packings advanced in accordance with alterations in scale of packing charges: POTASSIUM, B.P., five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s.; 14 lb., 2s. 1½d.; 7 lb., 2s. 2½d. per lb. SODIUM, B.P., five cwt., 1s. 10d.; one cwt., 1s. 11d.; 28 lb., 2s. 2d.; 14 lb., 2s. 3½d.; 7 lb., 2s. 4½d. per lb. AMMONIUM, B.P., five cwt., 1s. 11d.; one cwt., 2s.; 28 lb., 2s. 3d.; 14 lb., 2s. 4½d.; 7 lb., 2s. 5½d. per lb. net. Resale clause applies, 28-lb. parcels and one-cwt. cases free. Export quotations are maintained as follows: POTASSIUM, B.P., five cwt., 1s. 4d.; one cwt., 1s. 4½d. SODIUM, B.P., five cwt., 1s. 5d.; one cwt., 1s. 5½d. AMMONIUM, B.P., five cwt., 1s. 6½d.; one cwt., 1s. 7d. per lb., f.o.b.

CALCIUM LACTATE.—Continues at the rates previously quoted: spot, one cwt., 1s. 0½d.; 56 lb., 1s. 1½d.; 28 lb., 1s. 2d.; smaller quantities, up to 1s. 6d. per lb.

CHLORAL HYDRATE.—Home makers' price scales remain steady: duty-paid crystals, in 14-lb. free containers, five cwt., 3s. 2d.; one cwt., 3s. 3d.; 28 lb., 3s. 4d.; 28 lb. jars, one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—A steady volume of business continues; prices unchanged. British material quoted at 1s. per lb., less 5 per cent. discount, nominal and without engagement. Dealers' prices for imported material are competitive.

CREAM OF TARTAR.—Prices remain steady. British material, 99 to 100 per cent., 92s. per cwt., less 2½ per cent. discount. Dealers' prices for foreign material competitive.

EPHEDRINE HYDROCHLORIDE.—The market is again sharply firmer and may rise higher yet. For hydrochloride 6s. to 6s. 6d. is the current value, and it is doubtful if even large buyers can readily procure at the lower figure. Alkaloid, 7s. 6d. to 8s. per oz.

GLYCERIN (B.P.).—Makers' prices for home consumption continue unchanged, with supplies restricted. One ton, in 10-cwt. drums, 101s. 6d. per cwt., drums extra.

HEXAMINE.—Makers' prices for bulk quantities are steady: B.P. powder at about 1s. 2½d.; free-running crystals, from 1s. 3d. to 1s. 6d. per lb., carriage paid, for bulk lots. Dealers quoting free-running crystals, one cwt., 1s. 4d.; 14 lb., 1s. 8d.; smaller parcels, up to 2s. per lb., carriage paid.

IODIDES.—The prices are fully firm at makers' scales previously quoted: Potassium, B.P., one cwt., 4s. 6d.; 28-lb., 4s. 8d.; 14-lb., 4s. 10d.; 7-lb., 5s. 4d.; 4-lb., 5s. 10d.; smaller quantities, 6s. 6d. per lb. Sodium, B.P., 28-lb., 5s. 9d.; 15-lb., 5s. 11d.; 7-lb., 6s. 5d.; 4-lb., 7s. 1d.; smaller quantities, 8s. 1d. per lb.

LACTIC ACID (B.P.).—Business remains slow: bulk quantities in carboys, 1s. 4½d. to 1s. 5d.; in winchesters and bottles, 1s. 6d. to 1s. 9d. per lb., as to quantity.

MERCURIALS.—Continue firm, prices steady. CHLORIDE, B.P. (CALOMEL).—One cwt., 5s. 11d.; less than one cwt., from 6s. per lb. upwards, as to quantity.

METHYL SALICYLATE.—Market is quiet: spot, ten cwt., 1s. 1½d.; five cwt., 1s. 2d.; one cwt., 1s. 2½d.; less than one cwt., 1s. 2½d.; small quantities, in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Dealers' prices are competitive: business small: two cwt., 19s. 3½d.; one cwt., 19s. 9½d.; 56 lb., 20s. 2½d.; small parcels, 20s. 8d. per lb.

PARA-AMINOBENZENESULPHONAMIDE.—Now quoted from home sources at 25s. per lb., net, with slightly lower prices for quantities of seven, fourteen or twenty-eight pounds.

PARAFORMALDEHYDE.—Business rather slow: 100 per cent. powder, quantities in kegs, 1s. 1d. to 1s. 1½d.; smaller parcels, to 1s. 4½d. per lb., as to quantity.

PEPSIN.—Prices for the 1/2,500 is steady, with 50 lb. or less quoted at 10s. per lb., net, ex store.

PHENOLPHTHALEIN.—Quoted unchanged: two cwt., 2s. 9d.; one cwt., 2s. 10d.; 28 lb., 3s.; 14 lb., 3s. 1d.; 7 lb., 3s. 2d.; smaller parcels, up to 3s. 6d. per lb.

POTASSIUM PERMANGANATE (B.P.).—Average demand, mostly in small quantities: spot, bulk quantities, in drums, 9d. to 10d.; druggists' parcels, from 10d. to 1s. per lb.

RESORCIN.—British material only available: crystals, one cwt., 4s. 11d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; less than 7 lb., up to 6s. 6d. per lb.

SACCHARIN.—The Convention price for 550 is 37s. 6d. per lb., duty paid, with rebates for quantities.

SALICYLIC ACID (B.P.).—Quoted unchanged, market dull: five cwt., 1s. 7d.; 1 cwt., 1s. 7½d.; 28 lb., 1s. 8d.; 14 lb., 1s. 9d.; 7 lb., 1s. 10d.; 4 lb., 2s. per lb.

SALOL.—Not much business moving: spot quoted from about 2s. 6d. to 3s. per lb., as to quantity, for crystals; powder, 2½d. per lb. extra.

SANTONIN.—A slow spot demand is reported, with holders quoting steadily at 49 5s. to 50 per kilo, as to quantity, ex store.

SODIUM BENZOATE (B.P.).—Fair business, market steady; bulk quantities, 1s. 6d.; one cwt., 1s. 7d.; smaller parcels, 1s. 8d. to 2s. per lb., as to quantity.

SODIUM DIETHYLBARBITURATE.—Home makers' prices are steady at former figures: one cwt., 11s.; 28 lb., 11s. 3d.; 14 lb., 11s. 6d.; 7 lb., 11s. 9d. per lb., with higher prices for smaller quantities.

SODIUM SALICYLATE (B.P.).—Market remains dull: makers' quotations unchanged: home trade, crystals or powder, five cwt., 1s. 5½d.; one cwt., 1s. 6d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s.; 1 lb., 2s. 3d. per lb.

SULPHONAL.—Dealers' prices are keen, business quiet: crystals or powder, two cwt., 15s. 5d.; one cwt., 15s. 10d.; 56 lb., 16s. 1d.; smaller parcels, up to 16s. 7d. per lb.

TARTARIC ACID (B.P. CRYSTALS).—A steady business is being done at prices unchanged from the former levels. British makers quote at 1s. 1½d. per lb., less than 5 per cent. discount. Foreign materials offered by dealers at competitive prices.

THEOBROMINE.—Continental material: pure, two cwt., 7s. 10d.; one cwt., 8s.; 56 lb., 8s. 2d.; smaller quantities, 8s. 4d. per lb. Sodium salicylate, two cwt., 6s. 3½d.; one cwt., 6s. 4½d.; 56 lb., 6s. 5½d.; smaller quantities, 6s. 6½d. per lb. delivered; 5-lb. tins free, smaller packages extra.

THYMOL.—Standard prices are as follows: synthetic, fine white, one cwt., 6s.; 56 lb., 6s. 4d.; 28 lb., 6s. 9d.; less than 28 lb., 7s. 6d. per lb., tins charged extra; ex ajowan seed, one cwt., 8s. 5d.; 56 lb., 8s. 10½d.; 28 lb., 9s. 5½d.; 14 lb., 10s. 6d. per lb.

VANILLIN.—Convention prices steady: ex clove oil or guaiacol, five cwt., 12s. 9d.; one cwt., 13s.; 56 lb., 13s. 3d.; less, 13s. 9d. per lb.

Crude Drugs, etc.

ACONITE ROOT.—Dealers are quoting small spot parcels at about 42s. 6d. per cwt., ex store.

AGAR.—Good business has been done with Japan for August, September and October shipment, although the spot market has been quiet. Prices are rather firmer: spot, Kobe, No. 1, 3s. 10½d. to 4s.; No. 2, 3s. 8d. to 3s. 9d.; Yokohama No. 1, 3s. 9d. per lb.; shipment, Kobe No. 1, 3s. 6d.; No. 2, 3s. 3d.; Yokohama No. 1, 3s. 2d. per lb., c.i.f.

ALOE.—Both Cape and Curaçao are steady at the firm levels recorded last week: Cape, spot, 63s. to 64s.; shipment, 62s. 6d. to 63s. per cwt., c.i.f. Curaçao, spot, 110s. for blacks, up to 120s. for livers. Shipment, 104s. per cwt., c.i.f.

ANTIMONY.—Chinese crude, spot, £40; shipment, July-August, £36, c.i.f. English regulus, £82 10s. to £83 10s., ex store.

ARNICA FLOWERS.—Dealers are quoting small spot parcels at about 1s. 2d. per lb., ex store.

BALSAMS.—Values are fully steady: *Tolu*, 1s. 10½d.; shipment, 1s. 8½d.; *Canada*, 2s. 8d.; *Copaiba*, 2s. 6d.; *Peru*, 5s. 4½d. per lb., spot.

BELLADONNA.—Occasional small business on spot: leaves, 57s. 6d.; root, 47s. 6d. per cwt., spot.

BENZOLIN.—Slow business in Sumatra, with ordinary seconds at 80s. per cwt. Siam, bean and pea, £26; pea, £20; grain, £15 per cwt., ex store.

BUCHU.—The market has been quiet, with a few inquiries for small lots. Prices remain fully steady. Rounds, 2s. 2d. to 2s. 4d., and ovals 1s. 10½d. to 2s. per lb., as to quality. Shipment, 2s. per lb., c.i.f.

CAMPOR.—Average business at unchanged prices: Japanese manufacturing BB grade, £8 per 100 lb.; Japanese, spot, tablets, 2s. 7½d.;

powder, 2s. 3½d.; slabs, 2s. 3½d. Shipment, tablets, 2s. 3½d.; powder, 2s. 1½d.; slabs, 2s. 0½d. per lb., c.i.f. English refined flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz. and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ¾ oz. and 1 in., 3s. 6d. per lb.

CANTHARIDES.—Demand has been steady for Chinese and prices are tending firmer: spot, Chinese, 2s. 3d. to 2s. 4d. per lb., as to quantity; shipment, 1s. 9d. to 1s. 10d. per lb., c.i.f.

CARDAMOMS.—Selling has been steady, but prices are unchanged. Bombay seed, 6s. 9d., spot, and 5s. 11d., c.i.f. Aleppy greens, 4s. 6d., spot, and 4s. per lb., c.i.f.

CASCARA SAGRADA.—Prices quoted from the source for new crop are still around 48s. to 50s. per cwt., c.i.f., as to supplier, but no interest is being shown on this side. Old peel, on spot, 67s. 6d. to 70s. per cwt.

CELERY SEEDS.—The spot quotation for bulk quantities is about 85s. per cwt., ex store.

CHAMOMILES.—There is a small steady demand for Belgian, and the new crop is indicated at about 120s. to 130s. per cwt., c.i.f.

CLOVES.—Still a quiet market. Zanzibar, spot, 8½d.; shipment, August-September, 8d. per lb., c.i.f. Madagascar, in bond, 8½d.; shipment, August-September, 7½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended July 31 were *nil* and the deliveries 140, leaving a stock of 3,816. From January 1 to date the landings of Zanzibar have been 4,997 and the deliveries 2,887. Landings of Madagascar for the week ended July 31 were *nil*, and the deliveries 35, leaving a stock of 4,448. From January 1 to date the landings of Madagascar have been 5,234 and the deliveries 2,056 packages.

COCOA BUTTER.—Business rather quiet. Prime English, 1s. per lb. Foreign, 10½d. to 11d. per lb.

COCONUT (DESICCATED).—Steady at the recent recovery in values: spot, fine, 22s. 6d.; medium, 21s. 6d. per cwt.; shipment, halves, August-September, 21s. per cwt., c.i.f.

COD-LIVER OIL.—Bergen reports average business. Prices continue steady. Finest Lofoten steam refined non-freezing medicinal oil, 100s. to 102s. per barrel, c.i.f. London. Spot, in small lots, about 135s. per barrel, ex store, duty paid. British finest medicinal oil quoted at 110s. per barrel, delivered U.K., with rebates for 25, 50, or more barrels.

COLOCYNTH.—The spot demand continues slow, the price quoted being 1s. 6d. to 1s. 9d. per lb., in bond, as to quality and quantity.

DERRIS ROOT.—Small spot business recorded, with prices ranging from 7½d. to 1s. 4½d. per lb., as to test. Shipment offers are at about 6½d. per lb., c.i.f., basis 17 per cent. ether extract.

ERGOT.—Cables from Portugal holding new crop Spanish/Portuguese for not less than 5s., mentioned in last week's issue, have been confirmed, and present prices are even higher, around 5s. 3d., c.i.f. On the spot, 6s. per lb. is being asked. There is no news of new-crop Russian.

GAMBOGE.—Good quality Siam pipe, £13 10s., duty paid; shipment, £11 10s. per cwt., c.i.f.

GENTIAN.—Quoted at 50s. per cwt., spot.

GINGER.—The price for West African, spot, has weakened to 57s. 6d.; for arrival, sellers, 50s. per cwt., c.i.f.

GUAIACUM.—Spot holders are quoting from 1s. 3d. to 1s. 6d. per lb. for good glossy block.

GUM ACACIA.—Reports from origin indicate that arrivals are smaller, and prices have shown a firming tendency. Kordofan cleaned sorts, spot, 52s. 6d.; shipment, new crop, 52s. 6d. per cwt., c.i.f.

HENBANE.—A price of 75s. per cwt. is current.

HENNA.—Dealers are quoting fair green Egyptian leaves at 35s. per cwt., ex store.

HYDRASTIS.—Quiet but steady. U.S.P. quality, 13s. 6d.; shipment, 13s. 9d. per lb., c.i.f.

IPECACUANHA.—A dull market, with prices continuing firm. Spot, 7s. 9d. per lb. for good Matto Grosso, ex store. No shipment offers.

IRISH MOSS.—Dealers' prices for small parcels range from 47s. 6d. to 55s. per cwt., as to quality.

JUNIPER BERRIES.—Some sifted Italian berries are quoted in the region of 27s. 6d. per cwt., as to quantity.

KOLA NUTS.—Some West Indian halves are available at about 3½d. per lb., ex store.

LIQUORICE ROOT.—32s. 6d. per cwt. is asked for decorticated, with natural at 12s. 6d. per cwt.

LOBELIA HERB.—The spot quotation is about 5½d. to 6d. per lb., with very little doing. New crop, September shipment, is quoted at 14 cents, c.i.f.

LYCOPodium.—Quoted at 5s. per lb., spot.

MENTHOL.—The market for Japanese has been slow, but prices are fully firm: spot, K/S brands, 13s.; in bond, 11s. 3d. to 11s. 6d. per lb.; shipment, K/S brands, August/September, 11s., October/December, 10s. 9d. per lb., c.i.f.

MERCURY.—The position is about the same as last week. F.o.b. Continental port, about 67 dollars; c.i.f. London, around £13 9s.; spot (ex store, London) around £13 10s. per bottle. Quotations may be withdrawn or revised without notice.

OPIMUM.—Occasional inquiry, market steady. Turkish, original cases of 170 lb., 12½-13 per cent., 1s. 1½d. Persian, 12 per cent., 1s. 1d. per unit, landed and duty paid.

ORANGE PEEL.—Some parcels of good quality thin cut peel are quoted from 1s. per lb., ex store.

PEPPER.—Spot values continue about steady at the recent levels. Lampung (in bond), spot, 3d.; shipment, buyers, August-October, 2½d.; sellers, October-December, 3d.; buyers, January-March, 3½d. per lb., c.i.f. Tellicherry, spot, 4½d.; shipment, August-October, 36s. 6d., c.i.f. Aleppy, spot, 4d.; shipment, August-October, sellers, 35s. per cwt., c.i.f. White Muntok, spot (in bond), 6d.; shipment, August-October, 4½d.; October-December, buyers, 4½d. per lb., c.i.f.

PIMENTO.—Quoted firmer. Spot, 6½d. per lb.; shipment, August-September, sellers, 56s. per cwt., c.i.f.

RHUBARB.—Steady, routine business has been done, the prices remaining substantially unchanged; Shensi, spot, 3s. 9d. to 4s.; pickings, 2s. 9d.; rough-round, high-dried, all-pinky, 1s. 10d. for best quality, with some ordinary quality at 1s. 6d. per lb.

RUBBER.—A further slight decline in prices was experienced, with increased interest, which caused firming later. Standard smoked ribbed sheet, spot, 8½d.; shipment, August, 8½d., September, 8½d., October-December, 9d., January-March, 9½d., April-June 9½d. per lb.

SAFFRON.—The indications are that anomalous sources are decreasing, with a tendency to more stable price levels. Spot, 77s. 6d. to 80s. per lb., as to quantity.

SEEDS.—**ANISE.**—Bulgarian, on spot, 39s., duty paid. **CANARY.**—Spot, duty paid, Mazagan, 24s.; Turkish, 22s.; Plate, 22s. 6d.; Spanish, 35s. to 45s. **CARAWAY.**—Dutch, spot, 29s., duty paid. **CORIANDER.**—Morocco, spot, offered at 24s., duty paid; shipment, 23s., c.i.f. **CUMIN.**—Malta, 45s. to 47s. 6d., spot, duty free. Morocco, now offered at 45s., duty paid. **FENUGREEK.**—Quiet; Morocco, spot, 13s. 6d., duty paid. **MUSTARD.**—English, 19s. 6d. to 28s. 6d. per cwt., according to quality.

SENAGA.—A shade easier on the spot, at 2s. 7d. per lb., ex store. Shipment, August-September, 2s. 2d. to 2s. 3d. per lb., c.i.f.

SENNA.—Continues quiet, with prices fully steady. Tinnevely leaves, on spot:—Bold, 7d., No. 1, 5½d.; No. 2, 3½d.; No. 3, 2½d.; No. 4, 2½d. per lb., for parcels of good green quality. **ALEXANDRIAN.** Spot supplies of hand-picked pods are offered as follows:—Finest selected 4s. 6d. to 5s., No. 1 3s. 3d. to 4s., No. 2 2s. 6d. to 2s. 9d., No. 3 1s. 8d. to 2s. per lb., with low grades available at 1s. to 1s. 4½d. per lb., ex wharf, London.

SHELLAC.—Weaker prices obtain for fine orange, spot, and TN, shipment: spot, standard TN orange, 46s. to 49s.; fine orange, 57s. 6d. to 110s.; pure button, 55s. to 60s. per cwt. For delivery, TN, August, 45s. 6d.; October, 46s. 6d.; December, 47s. 6d. For arrival, TN, August-September, 42s. per cwt., c.i.f.

SQUILL.—Dealers are offering fair to good white at about 28s. 6d. per cwt., ex store.

TONKA BEANS.—Occasional small spot sales, with fair frosted Para beans steady at 3s. 4d. per lb.

TRAGACANTH.—Business quiet over the holiday. Druggists' quality quoted around £72 10s. and seconds at £67 10s. per cwt.

TURMERIC.—Prices have been noticeably firmer. Madras, finger, spot, 27s.; shipment, 24s. 6d. to 26s. 6d. per cwt., c.i.f., as to quality.

WAX.—**BEES'.**—Market continues steady, business quiet, with firmer prices for Carnauba, fatty grey quality: Calcutta, bleached, spot, 150s.; shipment, July-August, 144s.; ordinary quality, spot, 120s.; shipment, 115s., c.i.f. Abyssinian, 122s. 6d., in bond; shipment, July-August, 118s., c.i.f. Benguella, spot, 122s. 6d.; shipment, from origin, 118s., c.i.f. Conakry, spot, 122s. 6d.; shipment, 116s., c.i.f. Dar-es-Salaam, spot, 127s.; shipment, 118s. 6d. per cwt., c.i.f. **CARNAUBA.**—Market fully steady, supplies limited. Fatty grey, spot, 175s.; shipment, affloat, 167s. 6d., c.i.f.; July-August, 167s. 6d.; December-January, 164s., c.i.f. Chalky grey, spot, 170s.; shipment, new crop, 160s., c.i.f. Primeira, spot, good quality, 220s.; f.a.q., 215s.; shipment, July-August, 207s. 6d., c.i.f. Mediana, spot, 210s.; shipment, 202s. 6d., c.i.f.

Essential Oils, etc.

THE essential oil market has been quiet over the Bank Holiday. Anise (star) tends firmer. Cinnamon leaf and clove have been in good demand from large purchasers. Eucalyptus (Australian) continues firm. So does Ho (Shiu). Mandarin is scarce.

ALMOND.—Quiet, unchanged: English (fixed), cwt. lots, 7s.; smaller parcels, up to 3s. 6d. per lb.; foreign, cwt. lots, 3s.; smaller parcels, up to 3s. 3d. per lb. French, bitter, 6s. to 6s. 3d. per lb., as to quantity.

ANISE (STAR).—Spot stocks are firmly held and probably higher prices than those given below would be asked for small lots. B.P. oil, spot, leads, 3s. 6d.; tins, 3s. 3d.; drums, 3s. per lb. ex store. There are no shipment offers of B.P. oil, but 2s. 9d. per lb. is asked for an oil registering 14½° (Hong Kong analyses).

BERGAMOT.—Still a quiet market. Spot, 14s. to 14s. 9d. per lb., as to seller. No shipment offers.

BOIS DE ROSE.—A fair amount of business is passing, and prices are steady. Brazilian, on the spot, 6s. to 6s. 3d. in drums and up to 6s. 9d. for small lots. No offers for immediate shipment.

CAJUPUT.—Steady at the recent firmer prices: spot, B.P., 2s. 5d. to 2s. 7d. per lb., as to quantity.

CANANGA.—Still a dull market: spot, from 6s. 1½d. to 6s. 4½d. per lb.; shipment, about 6s. per lb., c.i.f.

CARAWAY.—Average business; prices steady: Dutch rectified, 7s. 9d.; crude, 7s. 4d. per lb., landed and duty paid.

CASSIA.—Prices are well maintained for good quality oil on spot: leads, 3s. 3d. per lb. Shipment, leads, 3s. per lb., c.i.f.

CINNAMON LEAF.—The demand has been good from large buyers, and there are now no shipment offers at less than 3s. 1d. per lb., c.i.f., in drums. Repacked oil, in tins, 3s. 8d. per lb., ex store.

CITRONELLA.—Both Java and Ceylon continue steady: Ceylon, spot, drums, 1s. 9d., if available; smaller parcels, up to 2s. per lb.; shipment, drums, 1s. 6d. per lb., c.i.f. Java, spot, drums, 1s. 1½d. to 2s.; smaller parcels, up to 2s. 4½d.; shipment, drums, 1s. 8½d. per lb., c.i.f.

CLOVE.—There has been a good demand for Zanzibar stem oil from large buyers; other grades steady. Madagascar, drums, shipment, 3s. 0½d. per lb., c.i.f. Zanzibar stem oil, repacked in tins, 3s. 9d. to 3s. 10½d. per lb., delivered. English-distilled, cwt. lots, 5s. 9d.; smaller parcels, up to 6s. per lb.

EUCALYPTUS.—The market for Australian continues firm, although there has been no further price advance. Australian, 70 to 75 per cent., drums, 1s. 8½d.; tins, 1s. 9d. per lb., spot; shipment, August/September, drums, 1s. 5½d.; tins, 1s. 6½d., c.i.f. 80 to 85 per cent., spot, 1s. 9½d. per lb. (nominal); shipment, October, drums, 1s. 7½d.; tins, 1s. 8d. per lb., c.i.f.

GERANIUM.—There is no further news of Bourbon from the source, and the last price mentioned was 240 francs.

GRAPE-FRUIT.—Good average business: Florida, 11s. to 12s. per lb., as to quantity. Californian, 10s. 6d. to 12s. per lb., ex store. South African, if available, 15s. per lb.

HO (SHIU).—Spot stocks continue to be firmly held, and it is doubtful whether any is obtainable for less than 3s. 6d. per lb. ("improved" oil) in drums. Repacked oil at higher prices.

JUNIPER BERRY.—Prices fully steady. B.P. quality, 3s. 6d. to 4s. per lb., ex store, as to quantity.

LAVENDER.—New crop reports have not yet been received, and any prices mentioned are nominal.

LEMON.—The market for Sicilian continues lifeless, easier prices being quoted both on the spot and forward. The future position depends on the extent of the demand for fresh lemons. Spot, 11s. 9d. to 12s. 6d. per lb. for hand-pressed, as to quality and seller; shipment, 12s. to 12s. 6d., c.i.f.; machine-made, 11s. 6d. per lb., c.i.f. Californian cold-pressed, spot, 10s.; shipment, 9s. per lb., c.i.f.

LEMONGRASS.—Small lots of inferior grades have been reported as disposed of to American buyers, but otherwise the market has been neglected. Prices steady at 1s. 10½d. to 2s. per lb., in drums, as to quality. Shipment, quoted at 1s. 6½d., c.i.f.

MANDARIN.—Scarce on spot; prices from 24s. to 26s. as to quality and quantity. Shipment, 23s. 6d. to 25s. 6d. per lb., c.i.f.

NUTMEG.—Business has been quiet, with prices steady. American and Dutch on the spot, 5s. 7½d. to 5s. 9d. per lb., as to quantity.

ORANGE.—Not a very lively market. Sicilian, sweet, for shipment, 13s. 3d.; bitter, 10s. 3d. per lb., c.i.f. French Guineá, spot, in drums, 6s., with repacked oil, in tins, at higher rates. Tanganyika, bitter, in drums, 8s. Rhodesian, sweet, 10s. 6d. Californian, small drums, 4s. 2½d.; tins, in cases, 4s. 3½d.; single cases, 4s. 6d. per lb., ex store.

PALMAROSA.—Business has been quiet and easy at prices from 10s. to 10s. 3d. per lb., spot.

PEPPERMINT.—The position for Japanese affloat is about the same. 4s. 10d. is asked for August/September shipment, with re-sellers at 4s. 7d. October/December shipment, sellers 4s. 4d., buyers 4s. 1½d. On the spot, 4s. 10½d. per lb. American, natural, in drums, at 2 dollars 20 cents to 2 dollars 45 cents per lb. No prices for new crop yet available.

PETITGRAIN.—Buying is in small lots; prices steady. Spot, 4s. 3d. to 4s. 4d.; shipment, 4s. 1½d. per lb., c.i.f.

ROSEMARY.—Prices for good quality Spanish oil are firm around 3s. 6d. to 4s. 3d. per lb., ex store. No offers of new crop from source.

SANDALWOOD.—Genuine East Indian Mysore, in one case lots on spot, 19s. per lb. Oil described as East Indian from 17s. per lb., c.i.f., for bulk quantities. English-made East Indian, 22s. 6d. to 25s. per lb., as to quantity. English-made West Indian, 7s. 3d. per lb. Australian, steady at 5s. 3d. per lb. for 7-lb. tins; one case at 14s. 9d. and five cases at 14s. 6d. per lb.

SASSAFRAS.—Natural, quoted at 3s. 7d. to 3s. 9d., spot.

SFARMINT.—Current values are firmer: spot, 9s.; shipment, 8s. 3d. per lb., c.i.f.

SPIKE.—Genuine Spanish is firm at 5s. 3d. to 5s. 9d. per lb., spot, as to seller. No shipment offers from source.

WORMSEED.—Small amount of business. Prices, U.S.P. oil, spot, 12s. per lb.; shipment, 11s. 3d. per lb., c.i.f.

Correspondence

Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

British Pharmaceutical Conference

SIR,—Now that the 1937 Liverpool Conference is over—and I think (if we are to believe a tithe of what we were told) we can regard it as a great and perhaps even an outstanding success—it is my very pleasant duty to express the thanks of all the local officials, members of committees and stewards to all who attended the Liverpool Conference for their ready acceptance of all we provided in that spirit of appreciative co-operation which made our task so much easier and the result so much more gratifying to all concerned. We were not merely indebted to a kind Providence for good weather, but to the various hosts who helped us so cordially to make the Liverpool Conference so comprehensive—to the Lord Mayor for his splendid civic reception in one of the most magnificent of Britain's town halls; to his secretary, Mr. Percy Corkhill, for good advice; to the City transport and airport managers for their services; to the Mayors of Wallasey and Birkenhead for their co-operation and hospitality; to the University Council for their presence at our Opening Session, for the use of their fine buildings and for their reception of us in such a modern setting; to Lord Leverhulme for his wit and humorous eloquence and the widespread hospitality of his firm; to the Mersey Docks and Harbour Board; to the authorities of both Cathedrals for the many very interesting things exhibited and explained to us; to the Publications Committee of the Council for a very comprehensive booklet for which we were glad to supply so much in ideas, material and illustrations; to the proprietors of THE CHEMIST AND DRUGGIST for their splendid menus and the fine drawings which the president was able to present to the Lord Mayor; to the Press for the publicity of one sort or another that they accorded to us; to the "A.A." for their helpful signs, and so forth. Many others could be mentioned, and we are grateful to all who contributed.

Several of us received very handsome gifts and most interesting and useful mementoes of a great occasion; and as no adequate opportunity was provided for a suitable expression of thanks, we should like to take advantage of your columns to reiterate our gratitude. We, who were selected for these honours, are very grateful to all who contributed, but we were already amply repaid for all our efforts on behalf of the Conference by the obvious enjoyment and sincere appreciation of everybody. Although this letter is written on behalf of the Local Executive and the various subcommittees as a whole, it is also on behalf of myself as general local hon. secretary, Mr. Humphreys Jones as our local chairman, Mr. F. A. Lawman as chairman of the entertainments and secretary of the publicity committees, Mrs. Ferriday and Mrs. Martin Hughes as chairman and secretary of the ladies' committee, in particular and publicly to record on their behalf their appreciation and pleasure and my own for the splendid gifts presented at our final function. At the same time it should be recorded that we, who were selected for these gifts, owe a great deal to others, many of them unseen and unheard—our own personal assistants among them. We and, indeed, the Conference as a whole owe a lot to our vice-chairman, Mr. J. L. Hirst, for his experienced advice; to our local councillor, Mr. Moreton Parry, for his literary contributions; to our quiet, but efficient and most conscientious treasurer, Mr. Martin S. Hughes; to the chairmen and secretaries of committees. Messrs. I. V. L. Fergusson and G. L. Clubb were sound and most helpful on finance; Councillor W. J. Tristram was most helpful in all our dealings with the civic authorities; Mr. W. E. Shepherd did good work on the housing committee. He was in charge of the Conference office early and late, and always seemed to say and, what is more important, to do the right thing every time. Mr. Ben Hale deserves a special word of praise for the musical programmes and dance arrangements; and although the stewards played no part in our preliminary organisation, their services were available at every function during the week, and we hope to say more to them and to all the rest who helped at a local Conference reunion we hope to hold in the autumn. It was not the fault of Mr. Stephen Jones or Mr. F. Naylor that there are none other than crown greens in the neighbourhood; but they are to be congratulated on a splendid sports afternoon. Tributes, too, should be paid to the Adelphi management and staff and to all contributing to

our entertainment. Each gave us of his or her very best, and we are grateful.

If our knowledge and experience is likely to help our friends in Edinburgh, Birmingham and Bath, they can call on us; we wish them every success, and may each succeeding Conference learn from those preceding it to the advantage of all. Once more our best thanks are due to all attending the 1937 Conference for their kind appreciation of our efforts and their good fellowship to all.—Yours sincerely,

W. E. HUMPHREYS,
Hon. Local Secretary.

Liverpool, 18.

The Conference Chairman's Address

SIR,—The chairman of the British Pharmaceutical Conference, in his opening address (*C. & D.*, July 31, p. 118), described the position of pharmacy and pharmacists in terms which were fully justified, and showed plainly how we are obliged to fulfil responsible statutory duties and yet receive no adequate recognition from the State in return. Opening my daily paper one day last week the words "British Pharmaceutical Conference" caught my eye, and I began to read the article. What did I find? Nothing at all about the qualifications of pharmacists and the services they perform under the various Acts, but a whole column about a drug with a name containing twenty-eight letters, and a list of diseases it is supposed to be recommended for. I doubt whether one out of a dozen customers who enter a pharmacy to make a purchase of medicine or to get a prescription dispensed know that its proprietor is in a totally different position from other shopkeepers, that he has to pass a stiff examination before he can open, and afterwards is subject to many regulations.

Faithfully yours,
RESPECTFUL (3/8).

Prescription Pricing

SIR,—Your campaign on this subject has already called forth considerable correspondence, showing that the matter is of vital interest. In answer to the query of "Refurbished" (*C. & D.*, July 31, p. 139), being on holiday at the moment, I have not copies of the two prescriptions referred to; but from memory I would say that the former is a 3ss. dose and the latter a 3ij. dose. In the average Scottish pharmacy the dosage of a mixture regulates the price; and the "Rapid Method" of pricing, it should be understood, is the minimum charge. Expensive drugs, as I have already noted, are priced out according to the *C. & D.* "Costing System."

Yours, etc.,
A REFORMER (4/8).

SIR,—Whatever system of pricing is adopted for prescriptions, to be effective in raising the general tone of dispensing practice I consider it must be adhered to by all pharmacists, so that wherever a customer has his prescription dispensed the price will be the same. Nationally advertised and trade-marked goods have a fixed price wherever they are sold, and in many instances the sales are as good in the poorer districts as in the more wealthy areas. If the price can be found for these lines, no hardship should be entailed by a remunerative charge for dispensed medicines. Insured persons are already provided with medicine, and sooner or later no doubt their dependants will be included, so that a large section of the public would not be affected by retail charges; but if we are to get more equitable terms for panel work it is necessary for us to show true figures of its real worth, and we cannot do that till we get uniformity in our own prices. There might perhaps be an exception to the rule of standard pricing in the case of a purely dispensing business with an exclusive *clientèle*, of which type there are only a few in the country. But the charges would be higher and not lower than the standard. In any case, the adoption of a recognised costing system would eliminate the differences now existing; a prescription priced out properly at, say, rs. 9d. by one chemist would not be charged rs. 3d. by the next. Such a man is really using a form of price cutting, although he would be very indignant if a neighbouring chemist cut the prices of packed lines.

Your truly,
LEVELLIT (4/8).

Miscellaneous Inquiries

We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them

B. H. (13/7).—HOLIDAY PHOTOGRAPHY IN GERMANY.—We do not think your customer will have any difficulty in taking his camera and a small supply of films into Germany. The number of films should not exceed the quantity he is likely to use during his stay in that country. It is possible that the Customs authorities on the other side may demand a deposit on his camera in lieu of duty, but this would be refunded to him when he brought the camera out again. He would also be wise to obtain some evidence of having purchased his camera in this country to avoid difficulty with the Customs on this side when returning. While in Germany there is no restriction on what he may photograph, except views of military importance.

P. G. D. (12/84).—JOINT EVIL IN FOALS.—Joint evil, which is also called navel ill, is due to infection through the umbilicus or navel—usually a mixed infection—during and shortly after birth whilst the navel is still open. Infection is more likely to take place in permanent foaling boxes which retain infective material from some previous outbreak. The present-day preventive measures consist of tying the navel strings with sterilised or iodised catgut or silk, and applying some tincture of iodine over the navel, finally covering with tinct. benzoin, co. or iodised collodion. As some of the cases may be due to antenatal infection a vaccine is injected about a fortnight and again a week before foaling date, and the foal is given a half-sized dose twenty-four hours after birth. Strict cleanliness of the foaling box is absolutely necessary, and it should be well disinfected and scrubbed out.

G. G. H. (6/74).—TASTELESS CASCARA.—The following are alternative methods to that described in the B.P.C.:—

I

Cascara sagrada, in medium fine powder	100 gm.
Light magnesia	5 gm.

Moisten with 65 gm. of a mixture of equal parts of alcohol and water. After forty-eight hours transfer to percolator and exhaust with a mixture of equal parts of alcohol and water. The first 80 gm. is collected, the following 20 gm. is evaporated, and the residue dissolved in the first portion of the percolate so as to produce 100 gm.

II

This consists in exhausting cascara with water, evaporating to 12 oz., adding glycerin 8 oz., and after standing and filtering adding strong solution of ammonia 80 m.

These tasteless preparations tend to become inactive on keeping.

B. W. (30/7).—CELERY FLY.—From your description it would seem that the insect pest is the celery fly. The methods of control are as follows:—

(1) When possible, it is wise to avoid growing successive crops of celery in close proximity to each other.

(2) Protect the seedling plants during sunny weather by means of muslin screens. The young seedlings are often attacked by the first brood of the fly, before they are planted out, but, if protected at this stage, they usually escape subsequently.

(3) In the case of small beds in gardens, it is usually possible to prevent serious damage by picking off and burning attacked leaves early in the season, and as soon as they can be detected. The first brood of maggots is thus destroyed, and, although the bed may be re-infested by flies coming from other gardens, nevertheless the severity of the attack is greatly diminished. It is of little use handpicking late in the season.

(4) Various powders and spray fluids have been recommended for application to the plants as deterrents to keep away the flies. Soot, or a mixture of three parts soot to one part lime, dusted over the plants at intervals from the time they are set out, is a well-known gardener's remedy, while the use of paraffin emulsion also has its adherents. A suitable emulsion may be made according to the following formula: Paraffin, 2 pints; soft soap, 1 lb.; water, 10 gallons. The soap is dissolved in about a gallon of hot water, the paraffin

is then added and is thoroughly emulsified by squirting the mixture back into itself with a hand syringe; the remainder of the water is finally added and the whole well mixed.

(5) It is desirable to force rapid leaf growth where there is a bad attack. Applications of nitrate of soda mixed with a little agricultural salt, and frequent and heavy watering will effect this.

(6) Excellent results in killing the larvae have been obtained by spraying infested celery with a solution containing one part nicotine (98 per cent.) in 200 parts water with sufficient soap to make a lather. This formula, however, requires about 8 oz. nicotine to make 10 gallons of spray fluid, and would be too expensive to have a wide application. A trial might be given to a more dilute solution such as: Nicotine (98 per cent.), 1 oz.; soft soap, $\frac{1}{2}$ lb.; and water, 10 gallons.

(7) Directly any celery or parsnips have been dug, every particle of foliage and stem should be collected and burnt. If it is merely put in bulk upon compost heaps or weeds, not in active fermentation, it is most probable that the puparia will be carried out with manure for celery or parsnips, or other crops grown near, and the flies will issue in due course.

C. F. (27/74).—CASTELLANI'S FOOT PASTE.—The following is the formula to which you refer:—

Carbolic acid	1 gm.
Salicylic acid	5 gm.
Soft paraffin	100 gm.

B. D. C. (30/7).—BOOKS ON THERAPEUTICS.—The publication which seems to us the most likely to meet your requirements is Hutchison's "Index of Treatment," published by Wright of Bristol, and Simpkin, Marshall, Ltd., London. The tenth edition was published in 1931, price 45s. In the *C. & D. Diary*, 1927, we published a list of "Books for Chemists," and it may be that under the heading of therapeutics you would find titles of other suitable books. Quain's "Dictionary of Medicine," which was a standard work for many years, is out of print at the present time.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," August 6, 1887

A Discussion on Painting

Mr. Symes [at the August Council meeting of the Pharmaceutical Society] asked if the charge of £40 for painting skylights was included in the report of the Finance Committee. Mr. Hampson supported Mr. Evans's proposal. . . . A monthly statement of expenditure would be in the interests of economy. Mr. Symes again asked a reply to his question regarding the skylights. The President replied that the item was not included. The order was given once in five years, and fell to be done during the recess this year. Mr. Richardson here said to the president: Previous to you, Mr. President, we had a series of economical presidents who did not go in so much for stucco and paint as you do. (Laughter.) We used to have the house painted once in three years, now it is done every year, and it seems the charge is excessive. Mr. Evans submitted that he had really no idea of starting this discussion, but the matter was becoming somewhat serious. He understood that one coat of paint cost £98; that was over £290 for three. Did that not seem rather high? Mr. Bottle said that he was responsible for the new way of doing the painting, but he was surprised to hear that the skylights were only painted once in five years. Here the president elicited from the secretary that the outside skylights were painted every year and the inside quinquennially. Mr. Hampson considered the charge enormous and thought that something should be done to restore the brick surface; it would have a better appearance and would be a great benefit to the Society. It was then agreed, on the suggestion of the president, to leave the matter to the House Committee.

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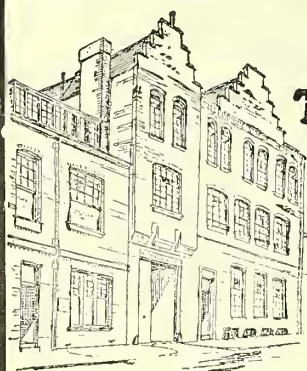
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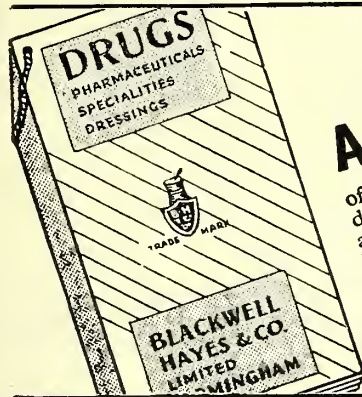
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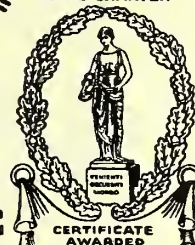
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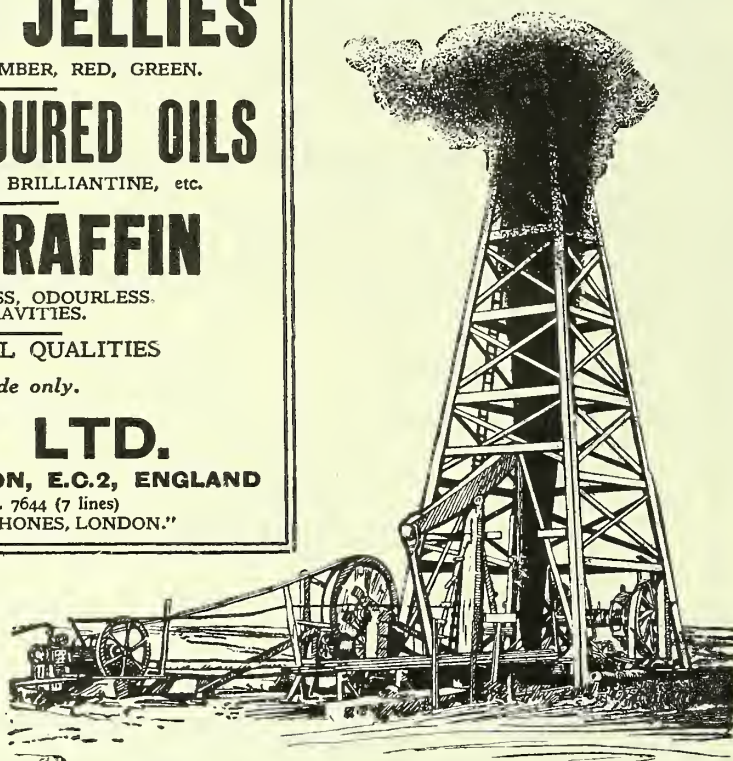
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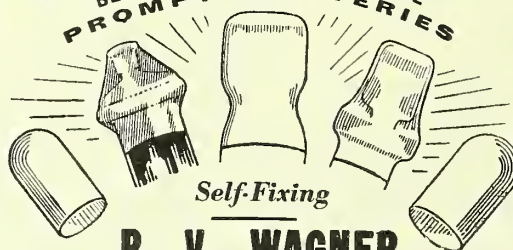
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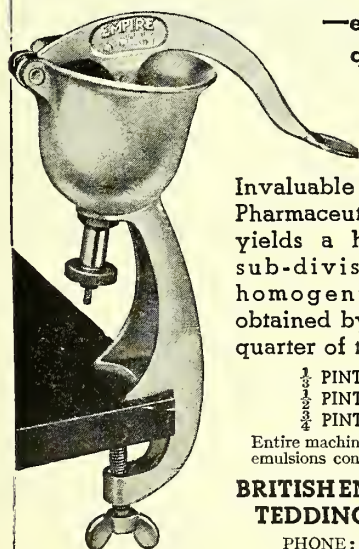
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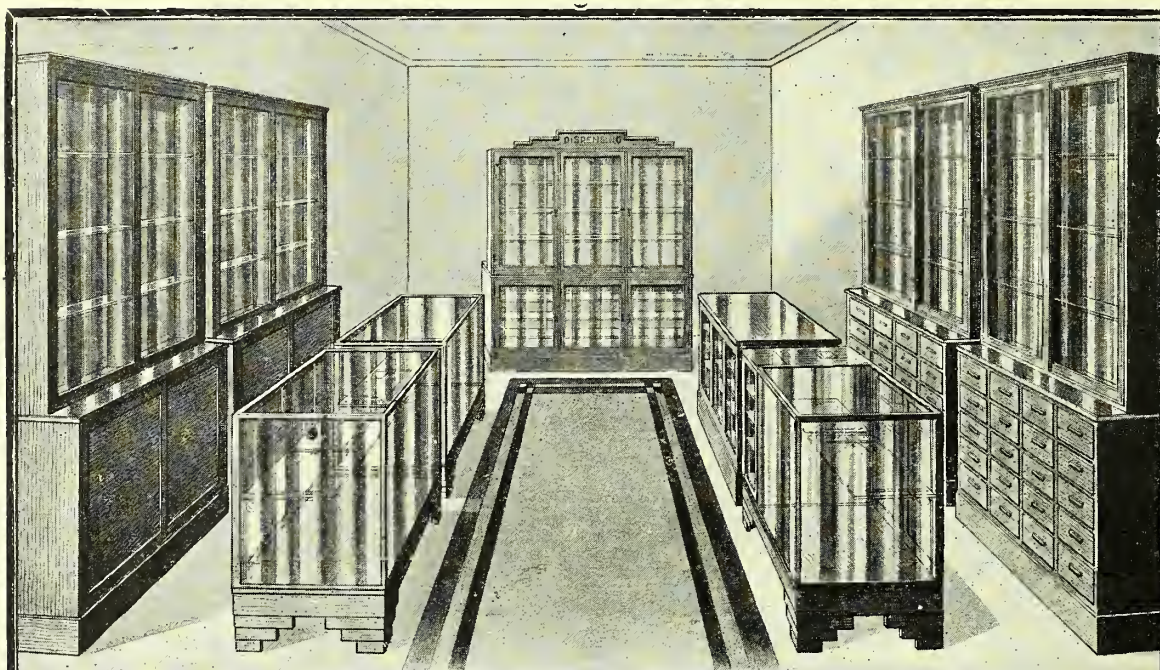
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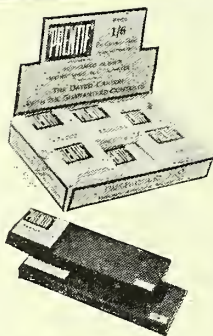
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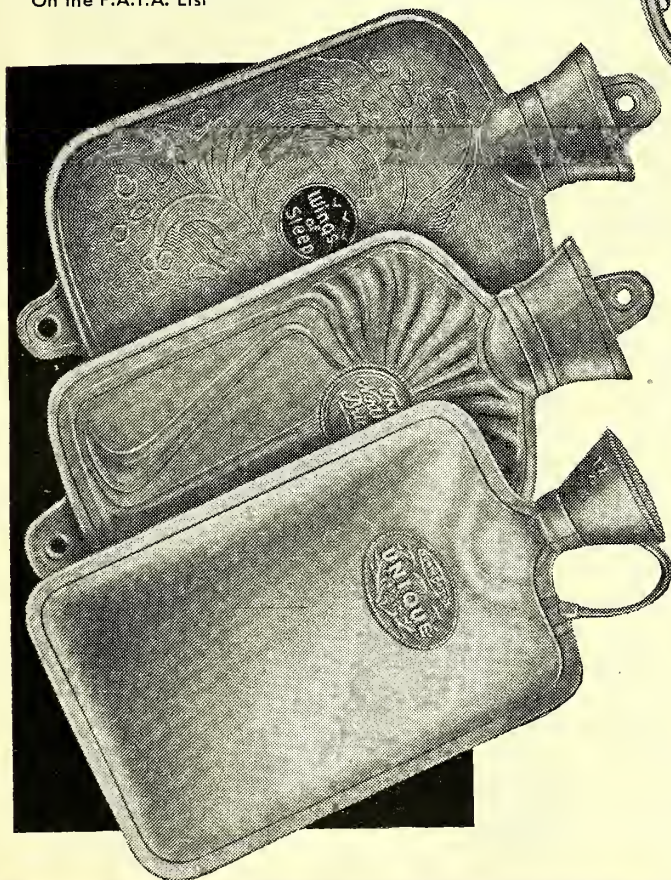
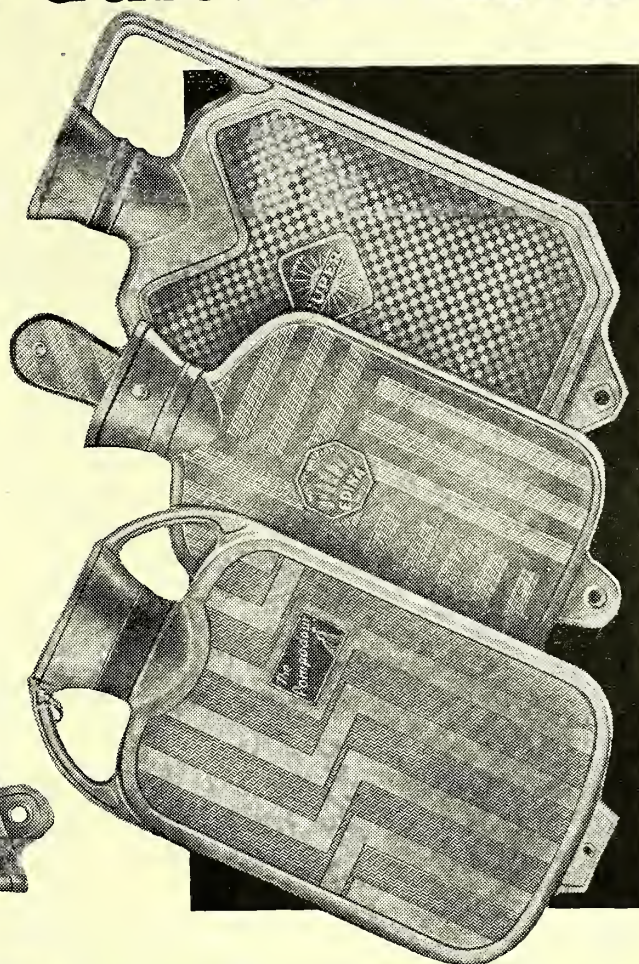
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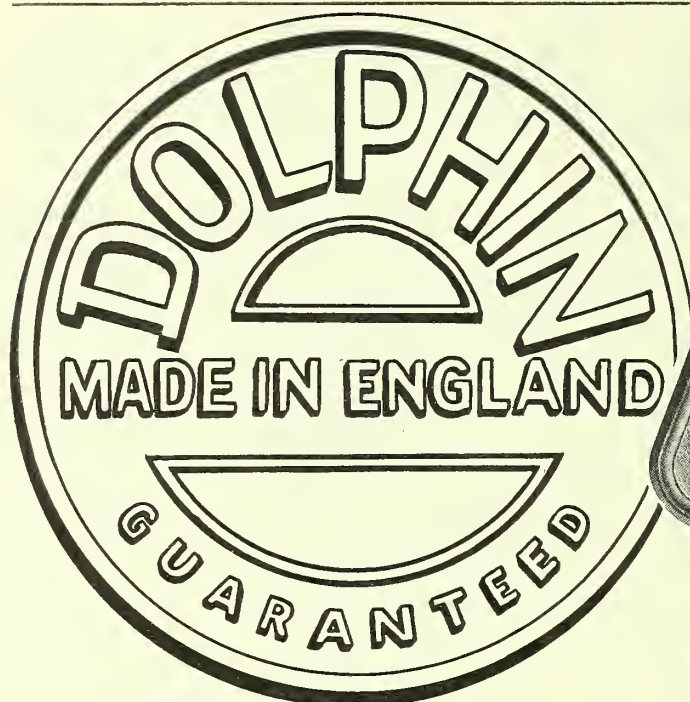
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AUGUST 7, 1937

28 ESSEX STREET, LONDON, W.C. 2

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7.—TORQUAY.—Good-class Business; takings last year £2,662; excellent profits; fixtures worth about £750; valuable lease; price required £2,750 all at, or £1,000, S.A.V.

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9.—TOOTING.—Middle and Working-class Retail Business; takings last year £1,936, plus Panel £185; gross profit over £900; rent only £70 per annum; price £1,350 all at.

10.—LONDON, N.W. 1.—Main Road General Retail Business; takings under management £2,250 per annum; rent £110 per annum; valuable stock and fixtures; minimum inclusive price £950 all at.

11.—CARLISLE.—Light Family Retail Business with Photographic; takings last year £1,486; net profit £372; stock worth £600, could be

reduced; very nice accommodation over; rent £65 per annum; price £1,000 all at, or near offer.

12.—PAIGNTON.—Drug and Photographic Store; takings average over £1,220 per annum; freehold can be purchased or leased at £65 per annum; stock worth about £350; price £300 for the goodwill and fixtures, stock to be taken at valuation.

13.—ESSEX (FEW MILES OUT).—General Retail Business; takings last year £2,190; present rate £45-£50 per week; double-fronted main-road pharmacy offering scope; rent £150 per annum; price required about £2,000; full details upon application.

14.—LUTON.—General Cash Retail Business; takings last year £1,212, increasing; gross profit 37 per cent.; freehold can be purchased or leased; nice living accommodation; price for the goodwill and fixtures £400, the stock to be taken at valuation; Wine Licence attached.

15.—LONDON, S.W. 11 (DEATH VACANCY).—General Retail Business; takings present rate £14 per week; good profits; rent £52 per annum; valuable stock worth over £200; attractive fixtures; price £200-£250 all at; must be sold without delay.

16.—LEICESTER.—General Retail Business; takings last year over £1,300; net profit £313; stock worth £320; modern living accommodation; premises can be purchased or leased; price of business £800 all at.

17.—EARL'S COURT.—General Retail Business taking about £25 per week; very nice accommodation over; rent £90 per annum; stock worth about £400; fixtures and shop front cost approximately £400 six months ago; inclusive purchase price £500.

18.—PLYMOUTH (NEAR).—Middle-class Business making over £3 per week net profit; Village Pharmacy; rent 8s. per week inclusive of rates; total purchase price £150.

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Corres. evidence, mutually confidential, is invited from prospective purchasers of the following businesses at present available for purchase.

(C1) NOTTS.—Pharmacy with Wine Licence; increasing turnover, which for the last financial year amounted to £1,820; up-to-date house with garage; property can be purchased or taken on lease at a rental of £78 per annum; at present under management; genuine reason for selling; small goodwill plus value of stock and fixtures.

(C2) ESSEX.—Unopposed country business about two miles from coast; at present under management; turnover for last financial year, £1,431; excellent scope under personal proprietorship; rent £75, including good house with garden, etc., and up-to-date conveniences; stock and fixtures estimated at £1,050; for a quick sale £1,100 all-at will be accepted; valuation terms if preferred.

(C3) LIVERPOOL.—Good-class business with excellent living accommodation; occupying main-road position in the only shopping parade of the district; turnover for last financial year, £1,367; gross profit 38 per cent.; rent £120; price £825, including stock and fixtures £625; reasonable offer considered.

(C4) EARL'S COURT.—Recently established Pharmacy with self-contained flat above; average returns approximately £24 weekly, and steadily increasing; rent £90 per annum; lease 21 years; price for quick sale £500, representing considerably less than value of stock and fixtures; must be sold owing to private internal circumstances.

(C5) SHROPSHIRE (DEATH VACANCY).—Unopposed village Pharmacy with living accommodation; turnover for 1936-37, £1,250; good saleable stock, estimated at £300; rent £30; rates £8; price all-at £600.

(C6) RUISLIP (NEAR).—Good profit-earning business situated in main shopping street; modern house above, including garden and space for garage; turnover upwards of £1,800 per annum; net profit approximately £470; reasonable rental; good scope; £400 is asked for goodwill, together with the respective values of stock and fixtures, but reasonable offers will, no doubt, be considered.

(C7) LEEDS.—Established City Business occupying prominent position; increasing turnover, now upwards of £2,150 per annum; high percentage profit (net £400/£450); stock and fixtures approximately £500; low offer accepted, as owner is purchasing a larger business; part might remain, if necessary.

(C8) EAST KENT.—Middle-working-class cash business, with excellent potentialities; turnover rapidly increasing, now at the rate of approximately £1,800 per annum, and should average over £50 per week within a reasonable space of time, consequent upon building development;

Valuations for transfer, probate, income tax, etc., promptly executed at economical rates Agency for locums, managers, etc.

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CHEMISTS' VALUERS AND TRANSFER AGENTS,

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1.—DEVON COAST.—High-class Business, with good Toilet connexion; has been neglected; returns £2,700; plenty of scope; splendid position; price £1,000 plus stock at valuation.

2.—LUTON.—Sound Progressive Business; in growing district; turnover £1,212; net profit over £350; large shop with house; own property; valuation terms accepted, about £800; worth attention.

3.—PORTSMOUTH (near).—Very Profitable Sound Business; returns £1,300; net profit £325; growing district; plenty of scope; audited books; low rent; good lease; price £750.

4.—NOTTINGHAM.—Light suburban Business, in pleasant residential district; returns last year £1,165, good profits; modern fitted shop, with good house attached; price £950, or valuation terms arranged.

5.—BERKS.—Light Cash Retail, in good position; returns approach £1,200, increasing; double-fronted shop with good house and large garden; no immediate opposition; price £650 or close offer; trial allowed.

6.—BEDFORDSHIRE.—Unopposed Drug Store, with Library attached; returns £900-£950; net profit £274; scope for Qualified Chemist; very low rent; on lease; price £250 plus stock at valuation, in all about £400.

7.—HARROW (near).—Good-class Suburban Business, with Optical connexion; returns £50 weekly; net profit £600; attractive shop with flat over; owner leaving trade; price £1,550.

8.—NORTH LONDON.—Owner retiring; Middle-class Suburban Trade, with large Panel; returns about £1,500; scope for increase; net rent £48; good lease; stock worth over £500; price £1,000; £400 can remain.

9.—DALSTON (near).—(Death Vacancy).—Light Cash Retail; in main road; returns £1,250; under manager; scope for increase; stock worth £420; price £550 or close offer to close estate.

10.—LONDON, E.16.—Cash Drug Store with some shipping trade; returns approach £1,200; fine opening for N.H.I.; net rent £51; main road position; same hands many years; price £750 or offer.

Lowest Terms for Stocktaking

Estab. 1870.

Telephone: Terminus 3574.

living accommodation if required; price £1,050, or near offer; including stock and fixtures estimated at £700.

(C9) HARROW (NEAR).—Good-class Pharmacy with optical department; turnover approximately £2,700 per annum; net profit £500; certified accounts; price £1,600 or offer.

(C10) ENFIELD.—Up-to-date, good-class business, situated in populous area; no near opposition; turnover approximately £1,300 per annum, with definite scope for increase; modern self-contained flat above; stock and fixtures estimated at £700; price £850 all-at or offer.

(C11) BOURNEMOUTH (NEAR).—Attractive modern Pharmacy, offering definite scope for increase; situated shopping parade, and passing trade in addition to personal connexion; up-to-date living accommodation, three bedrooms, bathroom and garden; increasing turnover, which for the last financial year was approximately £1,400; genuine reason for sale; price £750, including £600 for stock and fixtures.

(C12) SURREY.—Particularly attractive modern Pharmacy, situated in good-class district; at present under management; turnover for last financial year, £2,357; net profit to owner-proprietor approximately £400; excellent scope; up-to-date house above; price £1,150, including stock and fixtures estimated at £750, subject to valuation.

(C13) CUMBERLAND.—Family and dispensing business; turnover for 1936 year, £1,486; gross profit £548; attractive house with all modern conveniences; rent £65; owner moving South on account of family circumstances; price for quick sale, £400, plus stock at valuation.

(C14) BRIGHTON.—Unopposed, lock-up Pharmacy, at present under management; turnover for 1936/37, £1,109; this year the returns have increased and should reach approximately £1,350; gross profit about 36 per cent.; low rental; price £550, including stock and fixtures estimated at £480.

(C15) WHITECHAPEL (NEAR).—Prominently situated up-to-date Pharmacy occupying corner position; at present under management; returns now averaging about £35 per week, with scope for early increase to £45/£50; modern flat with all conveniences; genuine reason for selling; quick transaction essential, and owner will accept value of stock and fixtures only; exceptional opportunity.

(C16) CRYSTAL PALACE (NEAR).—DEATH VACANCY.—Drug Store, old-established, with living accommodation; turnover for last financial year, £1,046; excellent scope; situated in shopping street; reasonable purchase price.

(C17) BERKSHIRE.—Middle-class Cash Business, with small up-to-date flat, at present sub-let; increasing turnover, which for the 1936-37 financial year amounted to £2,650; net profit to Owner-Proprietor £500/£550; rent £100; lease 21 years; price £1,450 all-at, or offer.

THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED

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BUSINESSES FOR DISPOSAL

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BOURNEMOUTH.—A very old-established business for disposal owing to dissolution of partnership, in a main thoroughfare close to square; central; the business has a very large postal and local connexion, and lends itself to large development with capital, as it has some very valuable proprietaries; price, lease £400, and stock and fixtures at valuation about £600. Apply, "J," 21 Eldon Road, Bournemouth.

BOURNEMOUTH.—Opportunity not to be missed: well-appointed established Chemist Business; double-fronted shop with good living accommodation; good class trade, turnover approximately £20 per week, increasing; low rental or freehold can be purchased; a real bargain at £650 (or near offer), including stock, about £450. Apply Murrays, 111 Commercial Road, Bournemouth.

BRIGHTON.—Established good-class Pharmacy; busy shopping thoroughfare; turnover £1,500; excellent scope for increase; repairing lease, 19 years to run; rent £90/£100; rates £37 for year; new shopfront; good living accommodation over; no near opposition; price, including stock and fixtures, £1,250. 145/1, Office of this Paper.

LONDON, S.E.—Drug and Photographic Stores and N.H.I., main road; lease 17 years to run; takings about £40; good opportunity for young chemist. Apply, S. S. & B., c/o Wilkes, Jeffery & Co., Ltd., 29 Ludgate Hill, E.C.4.

LONDON, S.W.—Well-established good middle-class Cash Retail Business with scope for increase; turnover about £1,300, chartered accountant's figures; long lease; nice house above in good position; good reasons for disposal. 155/9, Office of this Paper.

MIDDLESEX (good-class suburb).—Retiring vacancy; Family Retail and Dispensing; modern shop; turnover last financial year exceeds £2,000 under management; current year shows increase; own freehold; will sell or grant a lease; bankers' reference with inquiries. 157/12, Office of this Paper.

SOUTHAMPTON.—Modern Pharmacy for sale in good residential district; fitted light oak, with frameless sliding doors; separate Dispensary, good living accommodation; very favourable lease; splendid opportunity for energetic person; open 17 months; returns first year £700; bargain; good reasons for disposal; full details on request. Apply, P. R. Fratten, 3 Gordon Buildings, Southampton.

SOUTH COAST.—Popular health resort, old-established business for sale; good main road position; ample living accommodation; good scope for Optics; well-fitted and stocked; rent and rates less than £2 per week; neglected; genuine scope for immediate increase with more energetic management; price arranged to suit purchaser. Details, apply 157/16, Office of this Paper.

SOUTH SHIELDS.—Chemists' business in main street; turnover £1,200, increasing; N.H.I.; fixtures and fittings, £175; stock at valuation about £525; owner going South. 308/208, Office of this Paper.

OWNER must dispose of light Retail Dispensing Business, Kent; 11 miles Charing Cross; last year's turnover, with N.H.I., £1,223, not including optical returns; corner, detached, with nice accommodation and garden; long lease; no near opposition; district still growing; price £150; stock, fixtures and fittings at valuation; genuine. 159/2, Office of this Paper.

BUSINESSES WANTED

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

WANTED.—A Family and Prescribing Business; within one or two miles from the South Coast; doing not less than £1,500 per year, and one having congenial living accommodation; low overheads essential, and where property can be purchased an advantage; full particulars in exchange for bankers' references. "Genuine," 145/2, Office of this Paper.

PREMISES TO LET

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

CHEMIST—UNUSUAL OPPORTUNITY NO OPPOSITION WHATEVER

TO LET.—Modern Shops with ideal living accommodation attached; rapidly growing district in large Essex town, with present population of 175,000; lease granted to suitable tenant at moderate rental. Opportunity for Chemist not to be missed. Hodgins, 42 Duke Street, Chelmsford.

STARTING A NEW BUSINESS? Here's just the place; modern shops in a busy thoroughfare in Guildford at reasonable rentals. Apply Antill & Bromilow, 14 London Road, Guildford, or Plus Flats Management, Ltd., Terminal House, Grosvenor Gardens, London, S.W.1.

STARTING A NEW BUSINESS? Here's just the place. Single-fronted shops in a new block of modern flats; 200 residents already and room for more! Busy thoroughfare in Richmond and reasonable rentals. Apply, "Plus Flats" Area Office, Lichfield Court, Sheen Road, Richmond, or Central Letting Office, Terminal House, Grosvenor Gardens, S.W.1.

VERY EXCEPTIONAL OPPORTUNITY for Chemist in unique position in new S.W. district; important main road; bold shop surrounded by new high-class housing estate; many acres of flats within 2 minutes of parade; intense building activity in immediate neighbourhood; shops letting before parade is finished (only three left); trade restrictions granted; rent of shop and upper part £160 per annum; no premium; shop front, suitable for high-class Chemist will be fitted. Further details of Mr. Close, 31 New Cavendish Street, W.1.

APARTMENTS

THE HAMPDEN RESIDENTIAL CLUB

FOR GENTLEMEN, Hampden Street, N.W.1. Close to King's Cross and Euston. 300 Bedrooms, 15s. to 22s. 6d. per week, including bath, attendance and boot cleaning. All meals à la carte in dining room. Moderate tariff. Large Club Rooms, Library, Billiards Room, Reading Room and Study for Students. Illustrated Prospectus from Secretary. Euston 2244/5.

TENDERS

COUNTY COUNCIL OF MIDDLESEX. PUBLIC ASSISTANCE DEPARTMENT.

Tenders for:—Dressings, Surgical Appliances, Surgical Instruments, etc.; Basic Drugs, B.P. or B.P.C. Preparations; Proprietary Drugs, Sera, Nitrous Oxide Gas, Oxygen, etc.; Pathological Requisites; X-ray, Light and Radium Requisites (SIX MONTHS).

THE County Council of Middlesex invites tenders for the supply of the above goods or materials for the period stated from October 1, 1937, to its several Hospitals, Institutions, Sanatoria, Children's Homes, Offices, etc.

Forms of tender (upon which only tenders will be considered), and conditions of contract, may be obtained on application to the Director of Public Assistance, 3 Central Buildings (Fourth Floor), Matthew Parker Street, Westminster, S.W.1, accompanied by a stamped addressed foolscap envelope.

Sealed tenders, marked "Tender for —," must be delivered at or before 11 a.m. on Monday, August 30, 1937, addressed to "The Clerk of the Middlesex County Council, 'L.I.' Guildhall, Westminster, S.W.1."

The Council does not bind itself to accept the lowest or any tender, and reserves the right to accept any tender or part only.

Estimated quantities required are stated in the form of tender, and tenderers may tender to supply all or any one or more of the establishments concerned.

C. W. RADCLIFFE,
Clerk of the County Council.

Guildhall, Westminster.
August, 1937.

SALES BY AUCTION

Removed from Guildford, Clapham, etc.

5 LITTLE BRITAIN (close to G.P.O.), E.C.

Complete CHEMISTS' SHOP FITTINGS in oak and mahogany (practically new), Drug Runs, Counters, Showcases, National Cash Tills, Mirrors, Perfumery Desk, Office Furniture, Sales, Typewriters.

B. NORMAN & SON

will sell by Auction, Wednesday, August 11, at 12 noon. Catalogues on application. Tel. NAT. 6463.

APPOINTMENTS

BRADFORD EDUCATION COMMITTEE.

TECHNICAL COLLEGE, BRADFORD.

APPLICATIONS are invited for the appointment as ASSISTANT LECTURER in the Department of PHARMACY in the College.

Salary according to the Burnham Award, which is from £186 to £480 per annum. Commencing salary according to qualifications and experience.

Full particulars of the appointment and forms of application may be obtained from the Director of Education, Town Hall, Bradford, and completed applications should be returned to the Principal of the College not later than August 28, 1937.

THOS. BOYCE,
Director of Education.

AGENCIES

NATIONAL advertisers of Proprietary Lines selling to Chemists, Grocers and Stores would find it more economical and better sales will result if selling is carried out by established distributors; if your own sales organisation is not meeting with the success desired, or if you have a new product and do not want to build your own sales organisation, communicate with Chemical and Natural Products, Ltd., 3 Thames House, Queen Street Place, London, E.C.4.

SITUATIONS OPEN

RETAIL (HOME)

BOURNEMOUTH.—Wanted immediately, capable Unqualified Junior (male), for small Pharmacy; good Dispenser and Window-dresser essential. Give full particulars in first letter, with salary required and recent photograph. Lees, Chemist, Curzon Road, Bournemouth.

BRADFORD ROYAL INFIRMARY.

MALE Qualified Assistant Pharmacist required; age not over 25.

Applications, stating age, experience and salary required, with copies of testimonials, to be sent to the Pharmacist.

LONDON.—Qualified Assistant (permanent). Also Assistant (Qualified preferred, but not essential) for two or three months; middle-class trade; give full particulars of experience, names of references, when disengaged, age and salary expected. Apply (letter only), Chemist, 37 Sydney Road, London, N.16.

LONDON.—Qualified Lady, permanent; to take charge of Dispensing and slight Counter duties; good salary offered to an interested worker. Please state full particulars and when free. 157/3, Office of this Paper.

LONDON, N.W.6.—Wanted, August 20, as L.T. for two or three weeks, an Unqualified Assistant (lady or gentleman) to assist Superintendent; may lead to permanent post. Apply Hay's Drug Stores, Ltd., 77 Carlton Vale, Maida Vale, N.W.6.

LONDON, S.W.—A vacancy occurs for a young Qualified lady or gentleman Locum with progressive permanency if suitable. Phone Str. 9515, or give full particulars by letter to 157/35, Office of this Paper.

NORTH WEMBLEY and Harrow District. Unqualified Senior Assistant, not over 35 years; male or female; Dispensing; good-class Toilets and Display work an advantage; progressive position to willing worker; date to commence, August 16 or soonest; three latest references (copies); wages £3 10s. to commence; guaranteed increments 5s. six-monthly to £4 afterwards by results. Apply, A. E. Miles, M.P.S., 12A Court Parade, North Wembley. Phone: Arnold 1514.

MANCHESTER.—Qualified lady required for City business; good class with knowledge of Toilet a great advantage; salary and commission. Write 307/201, Office of this Paper.

OXFORD.—Qualified Manager (about 25) for branch; single-handed; good Window-dresser and Salesman, also good knowledge of Photography. Apply, giving usual particulars and salary required, to R. N. Gardner, 146 Cowley Road, Oxford.

SOUTH COAST.—Qualified Manager required for small branch (age about 25); good Salesman, capable with displays; excellent prospects of advancement to right man. Write 307/202, Office of this Paper.

YORKSHIRE.—Qualified Manager required for branch in working-class district; brisk N.H.I. and Counter; permanency; good prospects of promotion. Write 307/200, Office of this Paper.

A JUNIOR Assistant (or Improver) required in high-class Dispensing business; possible permanency. Apply with photo, height, references and salary required. L. J. Collis & Co., Ltd., 34 St. Leonards Road, Bexhill-on-Sea, Sussex.

ASSISTANT for good-class Dispensing business; up-to-date Counterman and Window-dresser. Usual particulars, salary required. Apply to C. A. Maries, 122 South Road, Waterloo, Liverpool 22.

ASSISTANT, Unqualified, required as soon as possible for a medium-class business in North London; permanent and comfortable berth for suitable applicant; please state age, height, experience and salary required, and when free; interview preferred. 157/38, Office of this Paper.

ASSISTANT, Unqualified, wanted at once; one with some Dispensing experience, for a quick cash business. Apply with full details as to experience and wages, etc. W. T. Pratt, M.P.S., M.I.C.O., 94 Canterbury Road, Kilburn, N.W.

CAPABLE Dispenser required about August 23, for 3 or 4 weeks. Gwillim, Chemist, Brecon, S. Wales.

JUNIOR Assistant (male) required for good-class Family and Dispensing business. Apply by letter, stating age, height, experience, salary required and when disengaged, to J. W. Rumsey & Son, 535 Lordship Lane, S.E.22.

LOCUM.—Lady or Gentleman, Qualified; light duties; pleasant neighbourhood; Hampshire. Hodder, Kingsclere.

LOCUM, Qualified, for London, E., till end of September, with view to permanency if satisfactory. Also Young Qualified Manager for branch, London suburb; permanent and progressive to worthy man. References and full particulars, stating salary expected, to 157/4, Office of this Paper.

LOCUM, Qualified Man required for two weeks from August 30 or September 6; no Sunday duty; London, W.6. Full particulars as to salary, etc., write 157/25, Office of this Paper.

LOCUM, Qualified or Unqualified, for fortnight commencing August 16. Tuckers, Chemists, 5 Spital Street, Dartford, Kent.

LOCUM, Qualified, required for one week between September 26-October 9. Write with full particulars, age, salary and references to Ling, Chemist, North Walsham, Norfolk.

LOCUM, Qualified, required for 4 weeks commencing August 22. Apply with usual particulars to H. Hocken, Ltd., 33 Station Road, Redhill, Surrey.

PHOTOGRAPHS, TESTIMONIALS, &c.

When replying to advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. Many of these announcements produce an exceptionally large response and, as can be readily understood, the task of returning photographs, testimonials, &c., is one of some difficulty.

LOCUM (Qualified) required from August 23 to September 3; recently qualified gentleman would suit; please state full particulars, John, Chemist, 118 Cowley Road, Uxbridge, Middlesex.

LOCUM, Qualified, required from September 6 to 11 inclusive; easy duties. Apply W. O. Whitley, M.P.S., Trollope, Ltd., Chemists, Trowbridge, Wilts.

LOCUM required, Unqualified, either sex, for Stamford Hill branch; August 23 to September 4. Apply Churchills, Chemists, Ltd., 350 High Road, Tottenham, N.17.

MANAGER required for small branch Pharmacy; N.H.I. and Family business. Please state when disengaged and salary required to E. J. Latham & Son, Dispensing Chemists, Warsop, near Mansfield.

QUALIFIED Assistant required for good-class Pharmacy; start August 30; Croydon district; £4. P.C.B. 252/8, Office of this Paper.

QUALIFIED Assistant wanted immediately; Locum or permanent with view to managership; good-class business, 307/203, Office of this Paper.

QUALIFIED Lady required for Retail Dispensing Business in S.E. London; to commence first week in September; comfortable permanent position. Apply, giving particulars as to salary, etc., to 157/54, Office of this Paper.

QUALIFIED Lady required; good Saleswoman and Window-dresser; for Family and Dispensing business; fair N.H.I. State salary and experience in first letter to "Chemist," 67 Sherwood Park Road, Mitcham.

QUALIFIED locum, immediately, until September 16. Apply, Atkins, 53 East Hill, Wandsworth. Tel. Battersea 1636.

QUALIFIED locum required September 4 to 18, both dates inclusive; salary £5 5s. per week; no Sunday or half-day duty, hours 8.30 to 6, Thursday 1 p.m., Friday 7, Saturday 8 p.m.; fare paid one way. State usual particulars; applications not answered within 4 days respectfully declined. Thomason, Chemist, Campden, Glos.

QUALIFIED Manager (married) required for good-class Country business; house provided; must be a quick and very accurate Dispenser, and used to good-class Counter trade. 158/14, Office of this Paper.

QUALIFIED Manager wanted early in August for mixed country business, including N.H.I.; no Sunday or half-day opening; living premises included. In application please state age, height, experience and salary required to J. P. Estoril, Ruddington, Notts.

QUALIFIED, permanency from August 23; near Brighton; living accommodation available if required; temporary considered. State salary required, etc., 157/20, Office of this Paper.

QUALIFIED required at once to take charge of small Dispensary in Retail Pharmacy; good salary, comfortable post, no Sunday duty. Full particulars, references, age, etc., to Smith, 48 The Parade, Socketts Heath, Grays, Essex.

TAYLORS, British Chemists, have several vacancies for Qualified Chemists in Birmingham and Manchester districts; permanent employment with good prospects to suitable applicants. Apply Retail Staff Manager, Timothy Whites & Taylors, Ltd., 70 Vauxhall Bridge Road, London, S.W.1.

TAYLORS, British Chemists, require Qualified man for relief duties in London; permanent employment and advancement to suitable applicant. Apply Retail Staff Manager, Timothy Whites & Taylors, Ltd., 70 Vauxhall Bridge Road, London, S.W.1.

TWO intelligent Female Clerks required, one Senior, one Junior, for Pricing Department in West End pharmacy. State age, experience, salary required, 307/204, Office of this Paper.

TWO Junior Assistants required at once; must have had experience of Counter work. Apply with full particulars to Ekins & Fisher, Market Place, St. Albans.

UNQUALIFIED Assistant (about 25-30) wanted early September; good Dispensing experience and Window-dresser; easy duties. Apply with usual particulars to W. O. Whitley, M.P.S., Trollope, Ltd., Chemists, Trowbridge, Wilts.

UNQUALIFIED Assistant, permanency, wanted at once, for Dispensing. State age, height, experience and salary required, outdoors; photo if possible. Cox, Chemist, Wealdstone, Harrow.

UNQUALIFIED Assistant required for London; smart Counter man and good Dispenser; salary £2 15s. and commission. Full particulars to 307/199, Office of this Paper.

UNQUALIFIED Assistant required for old-established Agricultural Chemist. Apply stating salary required, references and other usual particulars, to Carltons, Ltd., Chemists, High Street, Horncastle, Lincs.

UNQUALIFIED Assistant (20-30), male or female; permanency; for light Retail and Dispensing in Family business; required by August 23. Also Qualified locum from August 30 to September 11. Usual particulars of experience, references and salary expected. H. E. Nethercott, 98 High Road, New Southgate, N.11.

UNQUALIFIED Junior Assistant (male) required in good-class business. Apply, with full particulars, to Wallace Pring, 7 High Street, Bromley, Kent.

UNQUALIFIED Male, N. London, for N.H.I.; Stocks and Counter; preference given to one having some experience of Herbal and B.C. business; living accommodation over premises if desired; commission on increasing business. T.C.P., 157/36, Office of this Paper.

UNQUALIFIED; permanency; good prospects for right man in high-class business. All particulars, with photo, to E. Bing & Son, Canterbury.

WANTED.—A competent and experienced Optician and Pharmacist for a good-class Dispensing and Retail Business with extensive Optical and Photographic connexions; must be registered J.C.Q.O., a good Salesman, courteous in manner and trustworthy; permanent and progressive appointment. Kindly state full particulars of former experience, both optical and pharmaceutical, age, height, salary required, married or single, and enclose recent photograph (returnable) to D. T. Evans, Ltd., Chemists and Opticians, Margate.

WANTED at once a Junior Assistant or Improver, one just out of apprenticeship; splendid experience in high-class Dispensing; Harrogate. State age, wages, etc., photo if possible. 154/13, Office of this Paper.

WANTED at once, young lady Assistant, Unqualified, or an Improver, permanency; wages must be moderate; S.E. district; small Drug Store. Apply with full particulars to Collins, 48 Brookdale, New Southgate, N.11, or Phone Streatham 7420.

WANTED.—Temporary Assistant, Qualified, August 14 or 16 to August 30. State experience and salary required. Crawford, Chemist, Horley, Surrey.

WANTED, Unqualified Assistant for two weeks from September 1; must be experienced Dispenser for high-class business. Frank Inglis, Park Pharmacy, Bramhall, Cheshire.

YOUNG Lady or Gentleman required at once (permanency); unqualified, but must have good knowledge in high-class perfumery, also good Window-dresser. Apply, The Manager, Williams (Cash Chemists), Ltd., 14A Argyle Street, Oxford Circus, W.1.

YOUNG Qualified Assistant required immediately. Please give full particulars experience, etc. (Bromley district), 157/24, Office of this Paper.

YOUNG Qualified Man for permanency, E. London; middle and working-class trade. Apply, giving full particulars age, height, salary required; newly qualified would suit. 157/19, Office of this Paper.

WHOLESALE

YORKSHIRE Wholesale Drug House requires Representative to call on Chemists, etc., in Yorkshire and Lancashire districts; must have good knowledge of Drugs, Galenical and Packed Goods; need not be Qualified; give references and experience. State age and salary required. 307/205, Office of this Paper.

A SPECIAL REPRESENTATIVE FOR LONDON required by a firm of national importance marketing a well-known advertised line; to an ambitious man of outstanding ability, having a good connexion with Chemists, the appointment offers unusual scope; the man sought should be above the average, to whom a good salary will be paid; applicants must possess a car. Write, stating age and full particulars, which will be treated in confidence, to 307/195, Office of this Paper.

EXCEPTIONAL opportunity for a young man (aged 25 to 35) as Assistant to Sales Manager of prominent firm of Cosmetic Manufacturers. Apply with fullest particulars of experience, etc., in strictest confidence to 307/198, Office of this Paper.

EXPORT Manufacturing Chemists require young girl, good handwriting, for General Office Work. Nu-Organic Remedies, Ltd., 2 Featherstone Buildings, High Holborn.

HIGH-CLASS REPRESENTATIVE wanted for the MIDLANDS by a London firm marketing a nationally-advertised line to Chemists; a good salary and commission will be paid to the right man; the vacancy would suit a man who is seeking more responsibility and greatly improved prospects; reliable men with good references please apply; possession of a car essential. Give age, experience, etc., to 307/196, Office of this Paper.

JOHN RICHARDSON & CO., LTD., Manufacturing Chemists, Evington Valley Road, Leicester, require the services of an Analytical Chemist. Applicants will please give full particulars of qualification, experience, age and salary expected.

MANUFACTURERS of modern Insecticides, selling only to Commercial users, Shipowners, Ship-store Merchants, Factories, Public Authorities, etc., offer exclusive areas to suitable Representatives looking for a profitable sideline and who are willing to operate on a commission basis. 158/6, Office of this Paper.

REPRESENTATIVE required for NORTH YORKSHIRE, DURHAM, NORTHUMBERLAND, CUMBERLAND AND WESTMORLAND by a well-known firm of Manufacturing Chemists; to an exceptional man possessing a connexion with Chemists the vacancy offers a very real opportunity; good salary and commission; applicants must have own car. Write, giving full particulars age, etc., to 307/197, Office of this Paper.

TABLET and Pill Department; Improver wanted by Manufacturing Chemists, near London. Apply, stating age, wages expected and giving details of experience, to 308/207, Office of this Paper.

TRAVELLERS with connexions among Chemists, Hairdressers, Stores, Cutlers and Toilet Goods Stores, etc., wishing to add to their income and are able to carry an additional high-class branded line on generous commission basis, are invited to write immediately; territories open: Yorkshire, Midlands, North and South Wales, S.W. Counties. 307/206, Office of this Paper.

WANTED for London and Provinces, Representatives to handle a competitive line of Saloon Pins on commission basis. Apply 307/180, Office of this Paper.

WELL-KNOWN firm of Manufacturing Chemists require Representative for a London and district territory—only practical men with good appearance and personality considered; car provided; send photo if possible, state also full details of previous experience and age. 155/1, Office of this Paper.

WELL-KNOWN firm of Speciality Packers at popular prices require an experienced Sales Manager, resident in Lancashire or Yorkshire; must be a capable salesman and able to control others; only men able to earn big money on a co-operative basis need apply. 307/194, Office of this Paper.

YOUNG firm of Manufacturing Chemists, proprietaries, out to develop, require young man with experience of "big sales" business; modern sales control and promotion methods; position would be rapidly progressive. State full particulars of experience, age and salary required. 155/3, Office of this Paper.

COLONIAL, INDIAN AND FOREIGN

INDIA.—Our Bombay House has an opening for a Pharmacist (under 27) on their Representative Staff. Applicant must be single and of good appearance and address; preliminary engagement 3 years. Apply, giving full particulars, to The Anglo-French Drug Co., Ltd., 11-12 Guilford Street, London, W.C.1.

WANTED for Northern Rhodesia.—Qualified Chemist (male); three years' agreement, £32 10s., £35 and £37 10s. per month; passage paid; age 22-25 years. Write Box 1105, Frost-Smith Advertising, 64 Finsbury Pavement, E.C.2.

SITUATIONS WANTED

RETAIL (HOME)

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A SMART Qualified Manager (25), 8 years' first-class experience, desires position; expert Salesman, quick and accurate Dispenser, Window-dresser; irrefragable references. Reply 157/43, Office of this Paper.

A CTIVE, experienced Assistant (46), Unqualified; tall; permanency, locum; free August 16. Haigh, c/o Inkerman Café, Knapbill, Woking, Surrey.

A SSISTANT (Unqualified) (age 22). Referred Pharmacognosy; trustworthy, excellent references; English- and Welsh-speaking. Communicate: Beynon, King's Road, Llandebie, South Wales.

A SSISTANT (38), Unqualified; London, Continental and Colonial experience; good Salesman; disengaged; permanency or locum. Dawson, 193 Crowborough Road, Tooting.

CHEMIST; experienced; excellent Prescriber; locum or permanency; disengaged September 27; London or Provinces. "Chemist," 16 Highbury Terrace, Halstead, Essex.

DISPENSER (Hall), lady, free now; experienced Hospitals and Doctors; locum or otherwise; London or suburbs; good references. 155/4, Office of this Paper.

FRENCH-SPEAKING, Unqualified, requires situation West End; Continental experience; free end of August. A., 25 Leamington Road Villas, Bayswater.

L ADY Assistant (24), 6 years' experience in charge of high-class Toilet Department; knowledge conversational French; free September. 156/8, Office of this Paper.

L ADY Dispenser, 21 (Hull), desires post, Doctor or Hospital; experience both; knowledge book-keeping; drive car; Lancashire, London or near preferred; free middle September. 158/8, Office of this Paper.

NAMES AND ADDRESSES

When sending advertisements for any of the columns of this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not adhered to and delay and disappointment ensue. Strict attention to this detail will be appreciated.

LOCUM, experienced, several seasons; Qualified; trustworthy; free from September 20. Harris, 12 Northfield Avenue, W.13.

LOCUM, disengaged, accustomed sole charge; conscientious worker; tactful; light N.H.I.; long experience; recommended; would consider permanency; moderate salary; unregistered. L., 71 Cromwell Road, Wimbledon, S.W.19.

LOCUM, Qualified; free from August 7 to September 4; state terms. "Chemist," 59 Cremorne Road, Four Oaks, Birmingham.

LOCUM, Qualified; free one week from August 16; experienced; London only. Write "M.P.S.," 252 Barry Road, S.E.22.

M.P.S.—Young Scot, with English experience, desires permanency; Birmingham preferred; free fortnight's notice; salary £4 4s. Apply 157/32, Office of this Paper.

PHARMACIST requires evening duty, also Sunday, Retail and Dispensary; London area; moderate terms. Apply 157/40, Office of this Paper.

PROGRESSIVE position required by Qualified Chemist (age 31), married; ten years' experience as Manager both Retail and Manufacturing; accustomed to responsibility and staff control; free now. 157/48, Office of this Paper.

QUALIFIED Chemist, elderly, reliable, seeks post as Superintendent private company; Dispensing; part-time; Midlands preferred; terms reasonable. 158/11, Office of this Paper.

QUALIFIED Chemist-Optician (26), Manager or Assistant, Manchester area; would consider moderate salary if prospects good; at present managing. 152/15, Office of this Paper.

QUALIFIED Manager (married), tall, seeks permanency; fully experienced; excellent references; available now. "Brockedon," Lovibonds Avenue, Orpington, Kent.

QUALIFIED Manager (33), married, 15 years' experience, requires permanent, progressive Managerial post; used to busy N.H.I., Private, Counter, Photographics, Toiletries, sole charge buying, staff; Northants, Leicester, Wellingboro area preferred; join September 1. Roberts, 54 Walford Street, Newport, Mon.

QUALIFIED ten years (age 31 years), married; position required as Manager; country district preferred; experienced all branches, Photography, Dispensing, Prescribing, etc.; free now. 157/480, Office of this Paper.

QUALIFIED (22), height 6 feet, desires post; keen, energetic, well recommended; six years' experience all branches; free end August; please state terms. C/o McNab, 24 Bruntsfield Place, Edinburgh.

QUALIFIED (34), requires a position of trust in Yorkshire; fully experienced; interview arranged. "Chemist," 41 Mornington Terrace, Keighley.

QUALIFIED (25), 6 ft., good appearance and address, desires position as Manager or First Assistant; varied experience, at present managing in London; free one month; interview essential. 157/13, Office of this Paper.

UNQUALIFIED (Hall), long experience, as relief, emergency or permanent; disengaged from September 8. L.A.S.A., "Dyrons," Tickenham, Som.

UNQUALIFIED lady, good all-round experience, Wholesale or Retail, Counter, Dispensing, some experience Photography and general routine. 157/15, Office of this Paper.

UNQUALIFIED (24), 5 years' experience, Counter and Dispensing, seeks position, temporary or permanent; excellent references. Please state salary. "D. B.," 73 Broadway, Chesham, Bucks.

WHOLESALE

A.A.A.A.—YOUNG energetic Scot, M.P.S., F.F.Sc., F.I.C.A., thoroughly conversant with every phase of the business, desires interview statim with progressive house with view to Assistant or Works or Staff Managership, home or abroad; first-class Retail and Wholesale experience; now Representing Pharmaceutical, Dental and Medical House of repute; capabilities bear strictest investigation. 157/2, Office of this Paper.

A.A.—TRAVELLER (30), seeking change, desires permanent position with reputable firm, preferably one marketing popular proprietary line; good connexion in Southern England generally; head Traveller of Company (non-pharmaceutical); experienced, enterprising; accustomed to responsible and authoritative representation; experience also of labour organisation, internal management and buying; fidelity bond; good education; interview gladly arranged. P.C.B. 251/19, Office of this Paper.

ADVERTISER, considerable Retail experience, short but successful period as Traveller for well-known firm S.E. England, seeks similar post; well recommended; own car. Monfort, 4 Lawn Road, Broadstairs.

EXPERIENCED Representative and Medical Propaganda; three years Medical student; seeks position with firm of repute; established London connexion. 157/5, Office of this Paper.

PHARMACIST, wide experience in Retail, Hospital, Wholesale (calling on Doctors, Dentists, Chemists), offers services as Supervisor, Representative, or would undertake Medical Propaganda; car driver; free to reside anywhere. Pharmacist, 23 Old Manor Drive, Isleworth, Middlesex.

SALESMAN of exceptional ability; Drugs, Chemicals, Sundries, Toilet preparations, proprietaries, specialties and medical propaganda, desires position with house of repute, on salary and commission basis; can commence immediately. P.C.B. 252/7, Office of this Paper.

FOR SALE

(Articles to the value of £5-£50.)

A COMPLETE set of Pharmacy fittings for sale, comprising 14½ ft. chemist's cased Front Counter, Dispensing Screen, two cases with plate-glass shelves each side, sponge Case and mirror in centre; 2 x 8½ ft. Hall Cases, etc., together or separate. Apply, 157/350, Office of this Paper.

FIXTURES.—Silent Salesman, Cash Register and Counters, Large Specie Jar, Carboys. Watsons, Chemists, Forest Gate.

NORTH EAST COAST.—Giving up Pharmacy Department; complete stock, fixtures, fittings, etc., for sale; drug fixtures all mirror-backed; no reasonable offer refused. 157/6, Office of this Paper.

NUCLEUS OF CHEMIST'S SHOP.—New Stocks, Proprietaries, Sundries, Drugs; Fittings include plain Counter, Roll-top Desk, outside Clock Letter Sign "Chemist," good Scales, etc.; £35 all; bargain; situated Colchester. 154/11, Office of this Paper.

Small National Cash Register; records all Sales and Adds Takings; must sell. Write F. Shipley, 55 Fairholme Road, W.14.

MISCELLANEOUS

10s. for 60 words or less; 1s. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

CHEMISTS' FITTINGS.—Second-hand, in excellent condition; Mahogany Drug Run, with 32 drawers, cupboard and lockers, 4 shelves above, 12 ft. long, £14 10s. Mahogany Glass-fronted Counter, 10 ft. long, £8 10s. Mahogany and Plate Glass Display Counter fitted 2 rows glass shelves, 9 ft. long, £10 10s. Mahogany Mirror Back Wall Case, 3 rows glass shelves, 5 ft. long, £17 10s. Mahogany 5-sided Sponge Case, 3 ft. high by 2 ft. 6 in. wide, £3 10s. Inspection invited. Illustrated catalogue of new modern Pharmacy Fittings on request. F. MAUND & E. BERG (SHOW-CASES), LTD., shopfitters and Shop Front Builders, 175/9 Old Street, London, E.C.1.

MISCELLANEOUS—continued

MANAGE YOUR OWN BUSINESS!

Facilities offered make this possible.
Write, 157/42, Office of this Paper.

TREBLES for new and second-hand Fittings, Alterations, Shop Fronts, Glass Cases, Dispensing Screens, Counters, Drawers, Service Trays, Window Fittings, Wall Cases; send your requirements, 549 Lea Bridge Road, Leyton, London, E.10. 'Phone: LEY. 2370.

WE have just enlarged some almost new Pharmacies taken over by a multiple firm and can offer outstanding bargains in practically new and modern fittings; for example: 10-ft. Ideal Serving Counter; 6-ft. Ideal Dispensing Screen; 10-ft. Drug Fitting; 6-ft. Wall Showcase, £75. Write or call **PHILIP JOSEPHS & SONS, LTD.**, 90/92 St. John Street, Clerkenwell, E.C.1. 'Phone Clerk. 4111/2. "Pharmacy Fitters for Over a Century."

WE HAVE WHAT YOU WANT for a **FIRST-CLASS PHARMACY** in **OAK OR MAHOGANY**, suit any size shop; new or reconditioned fittings at reasonable price. Call or send your requirements. **RUDDUCK & CO.**, 219/227 Old Street, London, E.C.1. Phone Clerkenwell 3782 for **FREE Estimate**.

£9—COMPLETE CHEMIST FITTINGS at any price you wish to pay. We have erected in our showrooms a Complete Chemist's Shop with Metal Shop Front, Window Backs, Correct Window Lighting, Signs and modern Interior Fittings. Apply for Lists, **D. MATTHEWS & SON, LTD.**, "The Liverpool Shop Fitters," 14 and 16 Manchester Street, Liverpool. Est. 1848.

EXCHANGE COLUMN

2d. per word, minimum 2s. (Box No., 1s. extra.)

WANTED

NATIONAL Cash Register; must be in working order and reasonable price. Details to P.C.B. 252/2, Office of this Paper.

WANTED.—Small Gardner Hand Mixer, size "D" or similar. State particulars and price. Carter, Chemist, Oswestry.

THE SUPPLY OF
SUPPLEMENTS

On receipt of addressed Post Office
Wrappers (not more than six at a time)
stamped 1d. the Chemist and Druggist
Supplement will be forwarded without cost.

LOOSE STAMPS WILL NOT BE ACCEPTED

**If wrappers bear a halfpenny stamp only, Postal
delivery may be delayed.**

SHOPS ACTS, 1912-1936

You will avoid trouble and a good deal of worry by ensuring that the provisions of this new legislation are complied with.

To comply with legal requirements cards must be exhibited in the interior and exterior of the shop when serving customers after hours on week days, early closing days and Sundays.

Card "A" must be exhibited when
open on Sundays and

SHOPS (SUNDAY TRADING RESTRICTION) ACT, 1936

**THIS SHOP IS OPEN ON SUNDAY
FOR THE SALE OF
MEDICINES & MEDICAL AND
SURGICAL APPLIANCES
FROM**

Depth
11 in.

Width
14 in.

CARD "A"

Card "B" for other days in the week.

SHOPS ACTS 1912-1936

This Shop is
CLOSED
for to day
except
for the sale of
**MEDICINES and
MEDICAL & SURGICAL
APPLIANCES**

CARD "B"

The various enactments affecting the Drug Trade are detailed on the reverse side of the Cards.

The Cards are printed on stout board, 14" x 11", and are corded for hanging purposes.

Price 1/- each

2 for 1/9 4 for 3/6

Complete the order form below and supplies will be sent to you by return of post.

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Essex Street, Strand, London, W.C.2.
Please forward me post free

.....SHOPS ACTS CARDS (A)
....." " (B)
for which I enclose.....value.....

NAME

ADDRESS

FINE CHEMICALS

BRITISH MADE

ACETYL SALICYLIC ACID

SODIUM SALICYLATE

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VICTORIA STATION HOUSE, VICTORIA ST., LONDON, S.W.1

Telephone : VICtoria 1535

*Northern Sales Office : KING'S HOUSE,
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ments.*

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